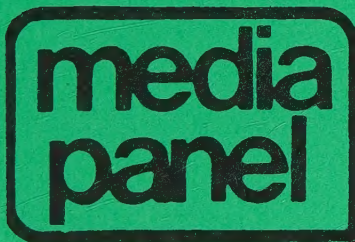


TV, Family and Society The Social Origins and Effects of Adolescents' TV use

Elias Hedinsson



Rapport nr 15 1981

Lund 1981

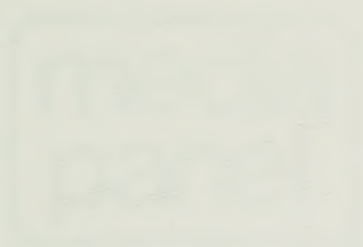
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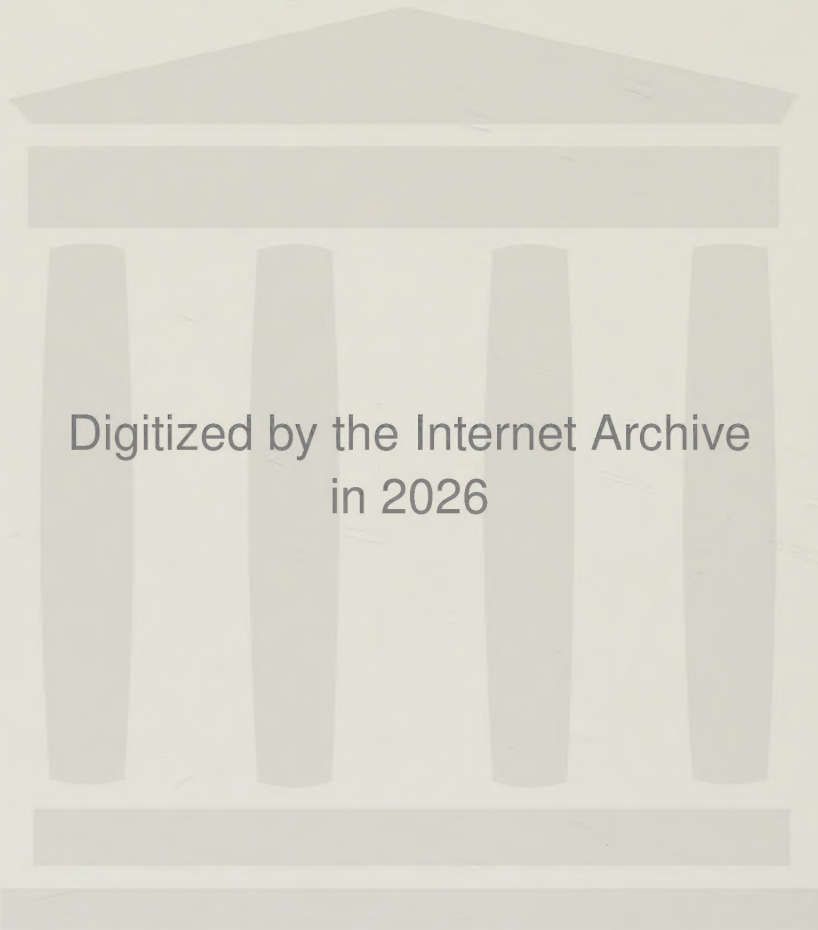
TV, Family and Society

TV, Family and Society

The Social Origins and Effects
of Adolescents' TV use

Elisabeth Hurlock





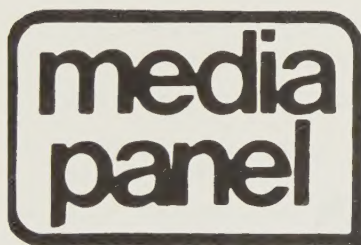
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by

Elias Hedinsson



Rapport nr 15 1981

ALMQVIST & WIKSELL INTERNATIONAL
STOCKHOLM – SWEDEN

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ISBN 91-22-00459-9
91-22-00461-0 (Bound)

Published by
Almqvist & Wiksell International, Stockholm, Sweden

Financed by the Bank of Sweden Tercentenary Foundation



Printed in Sweden by
Graphic Systems, Gbg 1981

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ACKNOWLEDGEMENTS

In the preparation of this work I have received support from several people.

I would particularly like to thank my advisor, Associate Professor Karl Erik Rosengren, for his honest guidance over the years and his numerous uncredited contributions to the preparation of my manuscript.

My colleagues in the Media Panel Program, Sven Win-dahl, Ulla Johnsson-Smaragdi and Inga Sonesson, also deserve their share of my gratitude for their encouragement and advice.

My thanks also go to Ragheidur Hardardottir and Keith Roe for their assistance in the production of the final draft of my manuscript.

Kerstin Nyström typed the manuscript and draw the figures with admirable patience.

My interest in mass communication research arose during my studies at the University of Iceland under the inspiring direction of Associate Professor Thorbjörn Broddason.

The work is dedicated to my family, Björg, Ingibjörg and Fannar, for their loving support.

Lund in July 1981
Elias Hedinsson

1. INTRODUCTION

In this chapter we present the Media Panel research program, from which the data of the present work are drawn. Further, the sample specifications and statistical techniques of the study are described in this chapter. The three following chapters (chapters two, three and four) present the theoretical frame of the study. The next four chapters present the study's empirical analyses. In chapter five the effects of social class on different aspects of adolescents' socialization are analyzed, while chapters six and seven, respectively, present the analysis of adolescents' TV use and its consequences. Chapter eight, the last analytical chapter, contains an overall assessment, in the form of structural equation models, of the social origins and effects of adolescents' TV use. Finally, in the ninth chapter, the findings of the preceeding chapters are summarized and some theoretical implications discussed.

1.1 The Media Panel Program

The data used in the present work is part of a research program, called Media Panel Program (MPP).

Media Panel is a research program conducted at the Department of Sociology, University of Lund, and the Department for Information Technique, the University College of Växjö. It is based on two research panels, one originally consisting of nursery school children and their parents, and the other of primary school children and their parents. The research program is described in Rosengren & Windahl (1978). This paper uses data from the first research wave of the Primary School Panel within the Media Panel Program. The aim of this panel is to analyze adolescents' TV behaviour and relations.

The population of this panel consists of adolescents from eleven to fifteen years old. The study has a planned time span of four years: Three research waves, with two year intervals. One of the reasons for this design - and, indeed, for the whole research program - is that mass media research has for the most part had the character of ad-hoc research, whereas longitudinal and cumulative studies have been more rare. The Media Panel Program is an attempt to change this trend. The aim of the project are threefold: Empirical, methodological and theoretical analysis.

We shall measure the adolescents' mass media behaviour by traditional methods (size and character of consumption), but we shall also try to penetrate deeper into the adolescents' relations with the television contents consumed. This will be done partly with the help of scales developed by the project team (see Rosengren & Windahl 1972 and Rosengren et al 1976); scales developed by other researchers, of course, will also be used. The adolescents' mass media behaviour will be related to different social and individual factors, such as self image, world view etc, and to different family and parental variables.

In order to obtain comparability and relate the project to earlier research, already tested measurement tools are used. For instance, the parents' attitude to their children's TV consumption is measured by Ray Brown's attitude scales (Brown 1974, Sonesson 1979), the family communication pattern is measured with Chaffee's scales (Chaffee et al 1973), the adolescents' TV consumption motives with Greenberg's scales (Greenberg 1974), the adolescents' peer and parent orientation with Bowerman's scales (Bowerman 1959), their self image with the scales of Rosenberg and Noble (Rosenberg 1965 and Noble 1975). We also study how the adolescents' media consumption influences their world view (Gerbner 1976), their stereotypes (Stewart 1974) and their choice of work (Broddason 1970).

Figure 1.1 Conceptual Scheme for the Primary School Panel
 (From Rosengren and Windahl 1978)

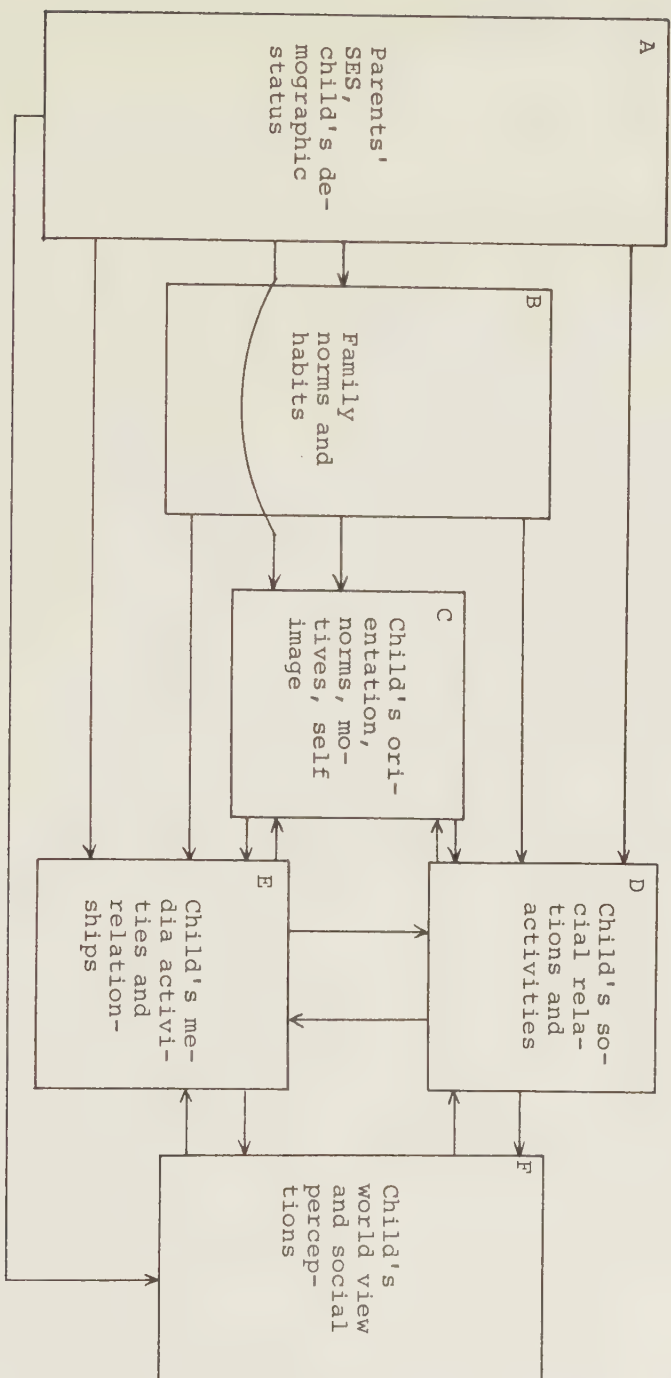


Figure 1.1 shows how the above-mentioned variables are grouped together (the 'boxes' in the figure), and the presumed relationships between these variable groupings.

1.2 Statistical Techniques

The analytical techniques most frequently used in the present study are Multiple Classification Analysis (MCA) and Analysis of Linear Structural Relationships by the method of Maximum Likelihood (LISREL).

The choice of the MCA technique is based on its capacity of being able to cope with central problem areas encountered in our empirical analyses. First, we wanted a technique that allows extensive controlling procedures, thereby making as explicit as possible the independent or unique effects of each of the independent variables under study. Second, we needed a technique which would admit an examination of linearity in the relationships between the dependent and independent variables. Finally, we wanted to establish the overall explanatory power, or in other words, the additive effects, of many independent variables and groups of variables taken together. The SPSS-MCA program (Kim and Kohout 1975) was used to achieve these aims.

The LISREL program (Jöreskog and Sörbom 1978), on the other hand, was used for a simultaneous empirical estimation of all components in the theoretical model underlying the empirical analysis of the present study. In order to illustrate closer the MCA technique, table 1.1 offers a sample table of the MCA type.

Table 1.1 Multiple Classification Analysis:
A Sample Table (from Kim and Kohout 1975)
Wages by sex and race with education and
length of employment as covariates

Grand mean = 100 (in dollars)

Variable + category	<u>Deviation from the grand mean</u>		
	Unadjusted	Adjusted for independents	Adjusted for independ- ents and covariates
Race			
1 White	+10	6	4
2 Nonwhite	-40	-24	-16
(Eta and beta)	(.632)	(.384)	(.253)
Sex			
1 Male	12	8	6
2 Female	-18	-12	-9
(Eta and beta)	(.465)	(.310)	(.232)
Multiple R	...	.648	.866
R^2	...	.420	.750

There are two types of independent variables: On one hand, nonmetric, categorical independent variables usually termed factors (in a MCA table these are labelled independents), on the other hand, metric independent variables termed covariates. Table 1.1 shows, in the first place, the grand mean of the dependent variable under study. The first column of the table shows the means of the dependent variable for each category of the independent factor variable, expressed as deviations from the grand mean. The values of the first column are based on raw data, i e they are not adjusted (i e controlled) for other independent variables. (The corresponding means of the dependent variable cannot, of course, be presented for the other type of independent variables, the metric covariates.)

The second column indicates the category means when we adjust for all other independent factor variables in the table. The difference between column one and two gives important information for our empirical analysis. We are here able to investigate, for example, whether a linear relationship (i.e. the values of the category means come in a falling or rising order) between the independent and dependent variable is unchanged or whether it becomes curvilinear, when the values of the category means are adjusted for the other independent factor variables in the table. (The reverse, of course, could also be true: a curvilinear relationship may become linear when adjusted for the other variables in the analysis).

The third column in the MCA table shows the values of the category means when, in addition to the factor variables heeded in column two, we adjust for covariate variables. The covariates are used to increase the power of the controlling procedures as well as to maximize the explained variance in the dependent variable.

In addition to columns of category means, the MCA table further provides measurements of the strength of the relationship between the dependent and independent variables. The unadjusted correlation measure is labelled Eta. The Eta coefficient is a non-linear correlation measure, explaining the variation in the dependent variable. Based on how dissimilar the means of the dependent variable are within the categories of the independent variable. Eta squared (Eta^2) indicates the variance explained by the independent variable. The adjusted correlation measure, i.e. the remaining strength of the relationship when controlling for other independent variables, is labelled Beta and is equivalent to the standardized regression coefficient (i.e. the coefficient indicates how many standard deviations changes in the dependent variable when the independent variable changes one standard deviation).

Finally, the squared multiple correlation coefficient, R^2 , presents the proportion of overall explained variance in the dependent variable that is obtained by the additive effects of all the independent variables. In the second column, the additive effects of the factor variables are reported by the R^2 , while in the third column the explanatory effects of the covariates are added to the strength of the R^2 coefficient.

A word on the variable construction is needed here. When scales or indices are used as category variables (factors) in the MCA analysis, they have been trichotomized into high, middle and low categories respectively. The categories have been chosen so as to come as close as possible to 33 percent in each category.

To provide a test of significance, the F statistic, produced by analysis of variance using the SPSS-ANOVA program, is presented in our MCA tables. For each independent variable, the F statistic, in the form of asterisks is inserted in the last column of the MCA table. The number of asterisks inserted indicates the following significance levels:

Number of asterisks	Level of significance
(*)	.10
*	.05
**	.01
***	.001

The results of tests of significance, of course, depend on the sample size. In the present study we are dealing with two different sample sizes, when the eleven and fifteen years old adolescents are analyzed separately (509 and 250 respectively). As a consequence, the main emphasis will be laid on the relative strength of the correlation coefficients, i e Eta and Beta, while only secondary attention will be paid to the significance levels obtained. This strategy makes it necessary

to interpret the strength of the coefficients as systematically as possible. As a rule of thumb we have used the following interpretations:

Strength of the coefficient	Interpretation of the relationship
> .30	Rather strong
.29 - .20	Moderately strong
.19 - .13	Weak

The SPSS-ONEWAY program (Kim and Kohout 1975) was used in a few instances to test for statistical significance in the differences of category means. The test is a systematic procedure of comparing all possible pairs of category means. The categories are divided into homogeneous subsets, where the differences in the means of any two categories in a subset is not significant at some given significance level (in our analysis the .05 level).

The LISREL method is complex and will not be described in detail here. For detailed information see the LISREL USER'S GUIDE (Jöreskog and Sörbom 1978). In the present study the LISREL method was used as a path model device, with the indices and scales used in the model constructed a priori, i.e. using only the structural equation model part of the LISREL method. The LISREL structural equation model specifies the causal relationships among the variables in the model. It estimates both the causal effects of the variables and the amount of explained variance.

The structural equation model is used to test whether in fact the data are consistent with the model theoretically hypothesized. To test whether the specified model is consistent with the data, an overall goodness-of-fit test (χ^2) is performed by the LISREL program. The χ^2 should not reach traditional significance levels, thereby indicating that the fit of the model to the data is not dependent on chance. The parameter estimates for

the structural equations in the LISREL model are obtained through a full-information maximum likelihood procedure. The LISREL program provides further information which may be used interactively to re-specify the estimated model. In arriving at our final model, presented in chapter 8, we started by estimating a model that was wholly in accordance with the study's theoretical model. We then proceeded incrementally to relax the assumptions specified by the theoretical model, where warranted, using the information obtained from the first-order partial derivatives of the parameters in the model. The procedure of re-specification, gradually improving the fit of the model, continued until new re-specifications produced non-significant parameter estimates. In the final run, the parameters were standardized.

1.3 Sample

The study was carried out in October 1976, in the town of Växjö in Southern Sweden, which has a population of 62 000. Self-administered questionnaires were presented in the classroom to pupils in the 5th (11 years old), 7th (13 years old) and 9th (15 years old) grades in the community schools. After follow-ups, 97 % of the adolescents completed the questionnaires. Out of these, 509 were 5th graders, 244 7th graders and 250 9th graders. School attendance is mandatory for all these age groups, and the three age levels are, therefore, representative and directly comparable on a number of demographic characteristics. The reason why the 5th graders sample is double the size of the other samples is simply that they form the core of the future panel. (When averages for the whole sample are given below, the differential size of the subsamples has been controlled for by means of weighting.) Similar questionnaires were sent by mail to the mothers of the students, with a final answer rate of 85 %.

The respondents and non-respondents were compared by age, social class and marital status. The differences between the respondents and non-respondents were found to be marginal. For all the variables examined, the effects on the respondent category were never more than plus or minus 3 % from the obtained figure, had all the parents answered the questionnaire. Our sample should, therefore, give a rather good representation of the adolescents' parents. (For further details on the data collection procedures, see Johnsson-Smaragdi (1978).) In order to simplify the empirical analysis, we exclude the 7:th graders sample and analyse only the 5:th and 9:th graders samples in the present study.

2. THEORETICAL FRAME FOR MASS MEDIA RESEARCH

2.1 The Functional Paradigm

At the time around 1960 functional theories had an increasing dominance in sociology, most notably through T Parsons (see for example *The Social System* 1951) and R K Merton. But it was not until Klapper formulated the functional model in his book (1960) that they became fully recognized in mass communication research. (Although it had, of course, been used in much mass communication research before, see for example Riley and Riley, 1951 and 1959.)

In the new functional view, mass communication is no longer seen as a necessary or even sufficient cause of effects on the receiver. Instead we have a view of the mass media as one influence among other influences in a total situation, and all the variables are seen as relative to each other. In other words, it is the total situation that produces the effects.

As a direct effect of this functional thinking, the approach often labelled 'uses and gratification approach' grew more popular in the latter part of the nineteen-sixties. Earlier research in this approach is for example Herzog (1944), Berelson (1949), and Riley and Riley (1951). What this approach did was to change the old question: 'What do the media do to the people?' to the new question: 'What do people do with the media?' The uses and gratification approach is best presented in the book: *The Uses of Mass Communications* (1974), edited by Blumler and Katz.

According to Katz, Blumler and Gurevitch (1974) uses and gratification studies are concerned with: 1) the social and psychological origins of 2) needs which generate 3) expectations of 4) the mass media or other sources, which lead to 5) differential patterns of me-

dia exposure (or engagement in other activities) resulting in 6) need gratifications and 7) other consequences, perhaps mostly unintended ones.

If we look at the basic theoretical and methodical aspects of this approach, Katz et al (1974) point out five elements:

1. The audience is conceived of as active, that is, an important part of mass media uses is assumed to be goal directed.
2. In the mass communication process much initiative in linking need, gratification and media choice lies with the audience member.
3. The media competes with other sources of need satisfaction.
4. Methodologically speaking, many of the goals of mass media use can be derived from data supplied by individual audience members themselves.
5. Value judgements about the cultural significance of mass communication should be suspected while audience orientations are explored on their own terms.

If we summarize the main differences between the effect model and the 'uses of gratification' model, we see that the latter is concentrated on the functions which media material serves for its consumers, while the former, to use Klapper's words, is concerned with "the occurrence or non-occurrence of specific effects of which the media material was presumed to be the primary cause" (Klapper, 1960). Effects studies take media contents and their consumption for their starting point, uses and gratification studies start with the individual and his problems. The effects tradition has to a large extent been concerned with short-term individual effects intended by the communicator (for in-

stance commercial and political mass communication effects), while the uses and gratification students on their side have been looking at short-term individual effects more or less consciously intended by the consumer (Rosengren 1974).

The uses and gratification approach has been much criticized over the years, and even uses and gratification students are well aware of the flaws connected with their method (see Katz et al 1974). Below is a list of the weaknesses which Katz et al (1974) see in their method:

1. There is no accepted gratification typology to be used.
2. There is a lack of theories explaining the specific nature of each mass media in connection with the gratifications of the social audience.
3. There are no relevant theories explaining the social and psychological needs.
4. The social origins of the audience gratifications have not been analyzed.
5. The relationship between gratifications and effects has not been studied much.
6. The relationship between the sender and the receiver in the mass communication process has not been studied in detail.

Much harsher criticism is put forward by P Elliott (1974). He criticizes the use of functional analysis and points out its alleged tautological nature.

"The difficulty stems from the basic tautology that use leads to gratification. Different gratifications may be identified independently of use, but there is no way of distinguishing between them according to the level of satisfaction they supply". (Elliott, 1974:259)

Elliott goes further and states that if uses and gratification research were used in policy making, its effects would be positively harmful. This is because of the tautological and functional assumptions behind the approach. In themselves, uses and gratification data can only point in one direction, Elliott says, "towards a justification of the present situation" (Elliott 1974:260; but cf also Rosengren 1974).

This criticism leads us to the question of whether yet another new model change is taking place today. In the late sixties strong criticism was launched against the functional approach in sociology, and many sociologists like A E Gouldner (1970) and R F Friedrichs (1970) stated that a new paradigm had taken over from the old functional paradigm. As always the effects of change are slow to reach mass media studies, but as we saw in Elliott's criticism in the foregoing, conflict theory is now part of the sociology of mass media as well as of other branches of sociology. Other indicators of this can be seen in articles by D McQuail (1976), Murdock and Golding (1977), J Westergaard (1977), and Gurevitch and Blumler (1977).

The criticism of the uses and gratification approach will be discussed in more detail in the following section.

2.2 Two Competing Paradigms: Functional Analysis versus Conflict Theory

2.2.1 The Uses and Gratification Approach: A Critique

The uses and gratification approach has been outlined in the preceding section. Here, we shall present Rosengren's (1974) paradigmatic model as a starting point to a critical discussion of the functional paradigm in general and the uses and gratification approach in particular (Figure 2.1).

As we see from Figure 2.1, Rosengren's starting point is basic human needs which he puts forward as the in-

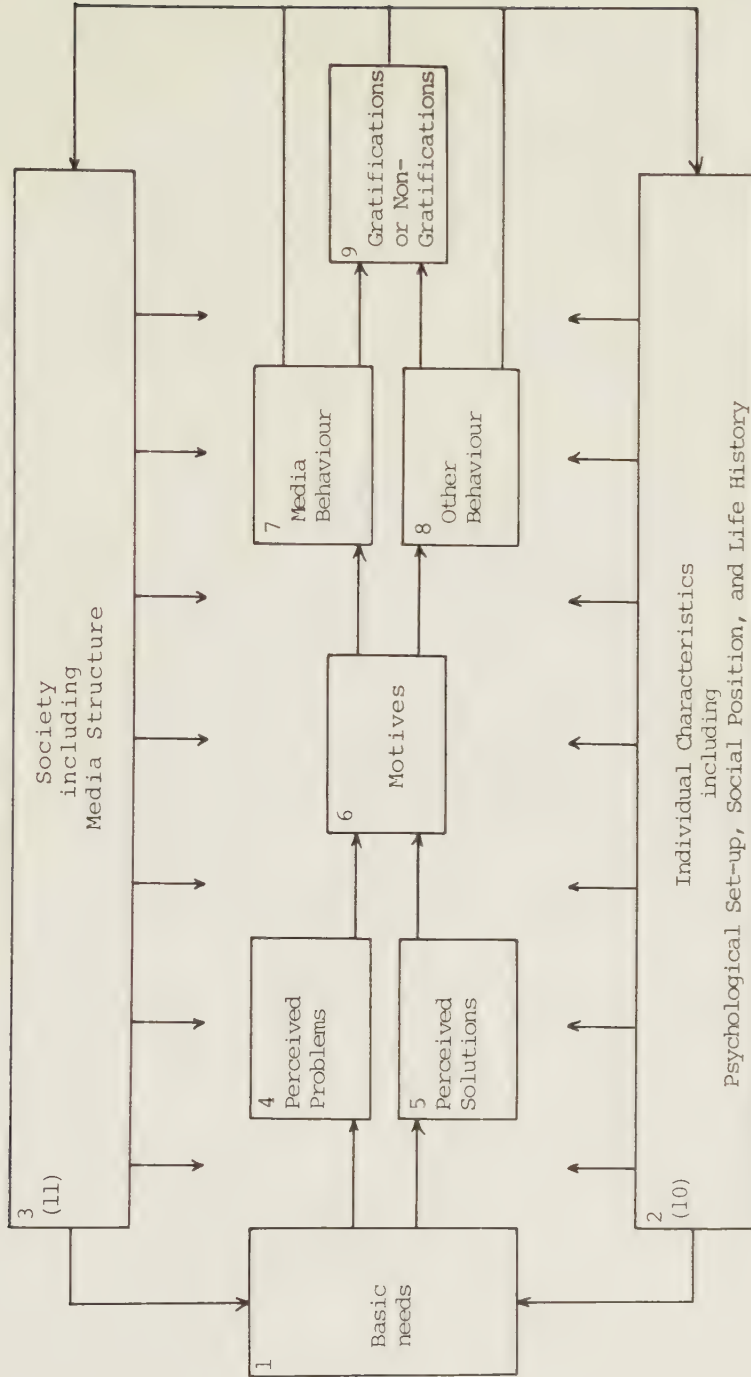


Figure 2.1 Visualized Paradigm for Uses and Gratifications Research
(From Rosengren 1974)

dependent variable in mass media consumption. These needs co-operate with the individual's characteristics (both psychological and sociological) and the social structure, in enabling the individual to see certain problems and even the solutions to these problems. In this way the individual is held to acquire motivations to use mass media, the individual seeks and gets gratification (or non-gratification) from his mass media use.

The assumptions most salient to criticism in a functional model like this are:

- A) The view it holds of the nature of man
- B) The stress on system equilibrium
- C) The uses of human needs
- D) The problem of conflict
- E) And, following from the other four items above, a consensus view of society, resulting in status-quo.

A) Nature of man: The uses and gratification approach has been criticized for seeing man as a totally rational being, always capable of assessing why he uses mass media in a certain way. The audience is seen as active, consciously selecting mass media programs in order to maximize its gratifications. As Katz et al have asserted:

"Methodologically the study rests on the assumption that people are aware of their needs and able to identify their source of satisfaction". (Katz et al 1974:179)

It has been pointed out that ritualistic behaviour is common in people's mass media consumption, and the individual not at all so instrumental and selective as the uses and gratification students assert.

The danger of stereotyped thinking has also been pointed out:

"For some people some kinds of gratifications

may seem more legitimate than others. Both regarding actual media consumption and the reasons given for it, factors connected with prestige will possibly distort the resulting answers". (Augedal 1973:3)

The third problem in having people themselves state their gratifications from mass media use is that they do not always know themselves why they are engaging in different sorts of mass media consumption. Or as Augedal puts it:

"Has not this picture of the totally rational human being been erased from the social sciences a long time ago?" (Augedal 1973:5)

But to reject completely, out of hand, the idea of an active audience would lead to a completely deterministic view. Elliott (1974) states that the problem in uses and gratification research concerning the active nature of man lies in the equation of goals and needs. And he goes on:

"To reinstate man as a conscious actor it is only necessary to suggest that he orients his behaviour towards the external world rather than internal mental states". (Elliott 1974:255)

B) System equilibrium: Functional theory has as its focal term the concept of 'system', which is seen as being the characteristic concern of sociology. Parsons has described this in the following words:

"The most general and fundamental property of a system is interdependence of parts of variables. Interdependence consists in... order in the relationship among the components which enter into a system. This order must have a tendency to self-maintenance, which is very generally expressed in concept of equilibrium". (Parsons 1951:107)

Here we have a system which seeks equilibrium by reduction of tension. Elliott (1974) points out that the

uses and gratification approach raises all the problems commonly associated with functionalism and is, indeed, a peculiarly individualistic variant of functional theory.

"Because of the inferences involved, the argument that use leads to the gratification of needs is at best circular and at worst imprisons research within a stable system of functional interdependencies from which there is no escape". (Elliott 1974:253)

On the same grounds, McQuail (1976) points to the danger that the functional approach will lead us to interpret all uses of mass media as functional, giving meaning to what may have no meaning.

C) Human needs: Directly following the stress on 'system' as the characteristic concern of sociology, is the use of human needs as the explanatory variable. Human behaviour is explained in terms of meeting certain needs. Media consumption is seen as meeting individual psychological dispositions. Uses and gratification students have often used Maslow's (Maslow 1954) need hierarchy in the argument (Rosengren 1974). Maslow distinguishes between five sets of basic needs:

- 1) psychological needs
- 2) safety needs
- 3) belongingness and love needs
- 4) esteem needs
- 5) need for self-actualization

The first two sets of needs are seen as biological and not connected to mass media use, while the latter three are seen as socially learned needs, and Rosengren (1974) states that they deserve the attention of the uses and gratification researcher. This dependence on innate needs has been the focus of most of the criticism directed against the uses and gratification approach. If the uses and gratification students are dealing with socially learned needs, these needs should

vary strongly between different social groups and societies. Therefore, it becomes impossible to speak about basic human needs operational for the whole mass media audience in general, (e.g. Fjaestad and Holmlöv 1977, Elliott 1974). Chaney (1972) points out that when the researcher starts from the conception of need disposition, it is nothing more than a restatement of the old pleasure-pain principles, and because the approach is individualistic, uses and gratification students are unable to tell us about what is pleasure or pain for which groups. This criticism is summarized as follows by Elliott:

"In searching for 'basic human needs' the aim is to find needs that are true of human beings qua human beings. The basic concept tends to set the approach off in a direction that is too general, too static, and too asocial for it to be effectively redirected at a later stage by the reintroduction of social or psychological variables". (Elliott 1974:251)

D) The problem of conflict: Functional theory, which is based on system and tension reduction mechanisms for maintaining equilibrium in that system has great difficulties in accounting for and explaining social conflict and change. Friedrichs describes this in the following way:

"They find but a secondary place granted the disruptive, the deviant, the tension-producing, conflict-generating and change-inducing forces that appear to abound in our social experiences. In its place we are offered: Equilibrium, tension-reduction and system-maintenance". (Friedrichs 1970:145)

Functional theorists have tried to solve this problem by using Merton's concept of dysfunctions, (see for instance, in the case of media sociology, Wright 1960), but evidently, this problem is not solved by simply introducing the notion of dysfunctionality. Some functionalists, like H Fallding (1963) have been willing to acknowledge quite openly that analysis in the functio-

nal-dysfunctional terms does indeed involve evolution:

"To ask the function of any social arrangement is to call for its justification or alternatively for its condemnation. The positive and negative polarity inherent in the terms (eu-) functional and dysfunctional should betray at once that evolution is afoot". (Fallding 1963:7)

This criticism has been launched against the uses and gratification approach. Meeting this criticism, Rosen-gren (1974) states that it is quite possible to investigate non-gratifications or dysfunctions within the uses and gratification approach but he admits that dysfunctions have been neglected, mostly because of methodological difficulties. The functional approach, because of the system and equilibrium nature of the approach, is unable to deal with the conflict, or in functional terms dysfunctions, so important in all social situations. No attempt is made to differentiate between groups on the basis of the power they possess and their ideologies.

E) The uses and gratification approach as a consensus model: The four aspects of functional theory discussed above, namely; the view of man (the audience in uses and gratifications) as totally rational, the dependence on system equilibrium, the use of needs as independent variables, and the problem of accounting for conflict and change - all taken together give this paradigm a consensus and status quo view of society. The uses and gratification model has attracted the attention of mass media producers (McQuail and Gurevitch 1974, Elliott 1974). It is, therefore, of some relevance to trace out some of the policy implications of the uses and gratification paradigm. The rational view of man suggest that the viewer can 'look after himself', and will only be influenced in a direction which he is already taking. This image of the mass media audience makes the question of the ownership and quality of the mass media contents irrelevant. Nothing matters, nothing can be changed.

All this leads us to question the value neutrality claimed by most uses and gratification students (see Rosengren 1974). Friedrichs has put it like this:

"The value free stance is violated in the very formulation of a research problem, both in terms of the selectivity of focus and through the particular way the problem is conceptualized". (Friedrichs 1970:149)

In this chapter, we have criticized the uses and gratification paradigm from the point of view of the competing conflict paradigm. To conclude, the uses and gratification paradigm has rendered mass media research a favour by stressing the unique characteristics of the audience and its selectivity. On the other hand, to study the audience in its social context, the uses and gratification paradigm has to take up central conceptualizations put forward by a conflict theory of society, and in the words of Carey and Kreiling:

"to cast off its functional model of explanation, its system model of social order, its naive and underdeveloped aesthetic theory and its implicit utilitarianism". (Carey and Kreiling 1974:242)

2.2.2 The Uses and Gratification Approach: An Appraisal

The harsh critique launched against the uses and gratification approach in the last ten years or so, although mostly stimulating, has at times had its sources in rivaling scholars and universities rather than some real issues. This has been unfortunate and tends to obscure the obvious similarities of the opposite strands of uses and gratification research. In the last few years a more balanced critique of the approach has been formulated by Swanson (1977, 1979a, b) and more importantly, some uses and gratifications students have acknowledged some of the sounder points of critique and

accepted the consequences both in their theoretical and empirical work. McQuail (1979) writing as a practitioner of the uses and gratifications approach discusses what critique of the approach is most warranted. Importantly, he finds it especially hard to deny: "... that the approach is actually rather insensitive to the essence of cultural variations" (McQuail 1979:7). However, McQuail stresses the point that uses and gratification researchers, instead of becoming absorbed in a futile 'unanswerable centuries-old metaphysical critique, should instead provide a more critical appraisal of their own effort. Of these, for the purpose of the present work, the most important contribution of the approach is the introduction of family and friendship patterns into mass communication research. McQuail states this as follows:

"Indeed, it is one of the interesting features of this kind of research that it has introduced into the discussion a number of indicators of social position which are intermediate between individual characteristics and facts of the overall social structure. These include, especially, such things as family and friendship patterns, organizational membership, organizational participation, leisure interest, work satisfaction. The quality of experience in these respects is related to social structure and personality". (McQuail 1979:13)

Windahl (1980) working within the theoretical frame of the Media Panel Program also accepts some of the critique of the uses and gratification approach, or paradigm as he calls it. He states four possible future paths:

- a) Leaving the paradigm entirely
- b) Variable analysis and development
- c) Paradigm changes
- d) Merger with other paradigms

With McQuail, Windahl agrees that if the mass communication process is to be more fully understood, uses and gratification research must continue in some form

or other. His answer to the criticism is a synthesis between the uses and gratification and the effects traditions.

The theoretical frame of the present work is anchored in the uses and gratification tradition. However, considering what is held to be reasonable criticism, (as outlined in section 2.2.1), special efforts will be made, first to incorporate the importance of the structural constraints of social class, both as a direct effect and as mediated through family and peer relations, and cognitive development (i e age), and second, to explore the possible consequences or effects, of the different uses of the mass media.

3. CENTRAL CONCEPTS: SOCIALIZATION; SOCIAL CLASS AND PARENTAL VALUES, FAMILY COMMUNICATION, COGNITIVE DEVELOPMENT

In this chapter we shall try to develop four concepts central to the theoretical frame of reference outlined in the preceding chapter. Firstly, socialization, the bridge between the child and adolescent and the society they live in, will be discussed. The difference between 'consensus' and 'conflict' theorist views of socialization will be pointed out. Secondly, the different socialization patterns of middle versus working class parents will be examined. And thirdly, the family communication pattern will be our issue. Finally, we discuss briefly cognitive developmental theories.

3.1 Socialization

It is of central importance to clarify what is meant by the term socialization, the wide area which McCron (1976:13) calls "the meeting point of human individuals and the society into which they are born". Zigler and Child (1969) see socialization as the process by which the individual learns through social interaction specific relevant patterns of social behaviour and experience.

Socialization has been used both in descriptions of society and of the individual. D Wrong puts this as follows:

"On the one hand socialization means 'transmission of culture', the particular culture of the society an individual enters at birth, and on the other hand the term is used to mean the process of becoming human, of acquiring uniquely human attitudes from interaction with others". (D Wrong 1961:192)

Let us now look closer at the two competing 'consensus and conflict' perspectives on socialization in sociology.

In sociology the nature of society is the debating issue with regard to socialization. Here, there are two opposite camps of social research, consensus versus conflict. McCron describes the 'consensus' stand as follows:

"The first view is of a society characterized by more or less uniformly accepted sets of appropriate normative values. The task of socialization is the maintenance of these consensually validated norms, by inculcation in the individual of appropriate roles and role expectations". (McCron 1976:26)

And he describes the 'conflict' view on socialization as follows:

"The argument from the second perspective is that the continued existence of a society in its present form depends on the coercion of some members of the society by others, who, by virtue of their position in the occupation order, are entrusted with the right to exercise authority or control. In so far as there is any consensus of values in society, they are the values of that section of the society who are capable of imposing them on others. In socialization, the individual is, therefore, confronted not with a single set of values to be 'learned', but with a series of disjunctive and contradictory value systems, which he must somehow negotiate or render meaningful". (McCron 1976:27)

Starting from this kind of 'conflict' model, Piepe et al (1978) in a recent empirical study in England have shown how class cultures with different socialization norms and values create complexities and ambiguities in what people find meaningful as individuals. Class division was found to produce differences and even discontinuities in consciousness. People from different social classes do not share the same mental world.

The sociological view on socialization put forward here, is that of a social being, involved in interaction rather than reaction, trying to render his life meaningful within the differential value systems of a

class society. This, in turn, leads us to consider human communication. How are meanings communicated within different social class subcultures in the society? As McQuail (1975) points out, all communication presupposes or establishes a social relationship between those who participate.

Today this line of thought is most strongly presented in theories derived from G H Mead, and has come to be known as symbolic interactionism. As its name implies, it is primarily concerned with the process of social interaction. One of Mead's pupils, H Blumer, has been influential in introducing the work of Mead into sociology. Blumer (1969) opposes strongly the notion of action as some kind of an expression of a system, either in a state of balance or seeking to achieve such a balance. Thus, he is opposed to the endresult of structural functionalism that thinks in terms of mechanical or organic processes, biased towards system maintenance and equilibrium.

Blumer criticizes structural functionalists on the grounds that they ignore the fact that group action consists of the collective actions of individuals seeking to meet their life situations. He stresses the freedom of choice of action within the framework of social order and emphasizes that social stratification sets the conditions for action without determining it altogether.

3.2 Social Class and Parental Values

The class structure is usually discussed in terms of middle class and working class formations. Drawing heavily upon the discussion of G J Ellis, G R Lee and L R Petersen (1978) we will present briefly the differences between middle and working class people's life experiences. For more detailed summaries, see Kohn (1969), Pearlin (1971), Lee (1977), and Gecas (1978).

Working class people are usually subjected to a high degree of supervision on the job. Their work is limited to routinized established procedures, and there is little need for innovation. Conformity is the factor most wanted by their supervisors. Middle class people, on the other hand, achieve success largely by virtue of individual initiative. They are less closely supervised and exercise more often independent judgment. The reward structure in their occupations is more likely to place a premium on autonomy and self-reliance.

From these two different life experiences, the working class versus the middle class occupational world, it is now possible to explain the audience's mass media use and expectations in terms of different 'customs', norms and conventions - defining what counts as appropriate.

How do different occupational experiences, based on the division of labour, affect parental socialization rules and values? What is the outcome of the interaction between the macro or economic experiences of different subcultures in society and their different micro or intrafamily actions in the socialization process? Sociologists have long been interested in the association between social class position and parental socialization values. The works of Kohn and his associates (Kohn 1959, 1969, Kohn and Schooler 1969, and Pearlin and Kohn 1966) pointing to a negative relationship between social class and parental praising of conformity in children, is of particular interest for us.

Working class people, because of strong experience of conformity at work, are believed to transfer this values to socialization behaviour, thereby valuing conformity in their children. But as G J Ellis et al (1978) point out, this does not have to mean that working class children are actually more conforming than others. In fact, the opposite may well be true (E G Devereaux 1970, 1972, and Lee 1977). The important point is that

working class parents appear to value conformity in children more than middle class parents do. On the other hand, since self-reliance is seen as helpful to success, middle class parents value it in their children.

In support of this theory, Kohn and others have consistently found that in America working class parents value conformity in children more than self-reliance, while the opposite is true of middle class parents. In addition, these findings have been supported in studies outside the United States. Pearlin (1971:58-70) demonstrates with data from Italy and the United States that differences in parental values are due largely to class-related differences in the nature of occupational experiences.

Another system of theories that we shall draw upon in this discussion about social class and parental values is sociolinguistics. The best known theories in this area are those of B Bernstein in Britain. He argues that different modes of speaking, 'linguistic codes', to use Bernstein's term, are functions of the forms social relations take (Bernstein 1971:124), or to put it more generally, qualities of social structure. The concept of code, as used by Bernstein, "refers to the principle which regulates the relation and organization of speech events" (Bernstein 1971:145).

Bernstein is primarily concerned with the difference between the middle class and the lower working class, and differences between two forms of speech use, two codes, but as McQuail points out:

"His class differentiation is highly ideal-typical in that he abstracts the main elements of a 'traditional', 'family centred', 'communal', 'non-instrumental', 'affective' working class life-style and culture and contrasts it with another abstraction of elements of 'middle-class culture': Discipline, rationality, orientation to the future sta-

bility, formality, self-control and so on".
(McQuail 1975:70)

Bernstein identifies two general types of socio-linguistic codes: restricted and elaborated, the former associated with working class occupation and life-style, the latter with middle class culture.

In the case of the elaborated code, the speaker will select from a relatively large range of syntactic and lexical alternatives, and the probability of predicting the organizing elements is relatively low. The code will facilitate the verbal transmission and elaboration of the unique experiences of the individual. The speaker will not take the condition of the listener for granted, as in the case of the restricted code, and the speaker is likely to modify his speech in the light of some anticipated differences between him and the listener. The elaborated code is, therefore, person-oriented and can be seen as a set of possibilities to present discrete experiences or ideas to others.

In the case of the restricted code, the probability of prediction of lexical and syntactic alternatives is much higher. The meaning of the speech will be mediated much more through the social context. It will be played out against the background of closely shared identifications, interests, communal norms and expectations of a given group, self-consciously held by its members. The code restricts the verbal form of individual differences and thereby reinforces or defines certain forms of social relationships. Individuals relate to and communicate with each other through the social status or positions they are occupying. The restricted code is, therefore, status or position-oriented, in contrast to the elaborated code which is person-oriented. McQuail points out:

"That for Bernstein, the important point to understand is the intimate connection between

form of language, socialization process and the rest of life experience... Bernstein argues that speech differences are closely related to socialization on the one hand and, on the other, to a person's subsequent potential in society. Class structure limits access to elaborated codes and hence tends to limit access to forms of social action which are relatively context-free, universalistic rather than particularistic, less tied to local culture and generally more autonomous. Typical class and family experience produces a certain form of use of speech, which in turn reinforces certain elements of the culture". (McQuail 1975:70)

Bernstein identifies two types of families, positional and person-oriented families. In person-oriented families, decision-making is more open for discussion and there would be less reference to formal statuses. This interaction pattern of the family members would, therefore, call for modes of communication where the individual's own judgements would be transmitted. Behaviour would be justified in terms of feelings and individual attitudes. This kind of interaction pattern would call for the use of elaborated code. In the person-oriented family system, the children learn to make their own roles instead of being formally assigned to them.

Position-oriented families, on the other hand, are characterized by interaction patterns and decision-making that are in terms of the formal statuses of the individuals involved. In such families, there would be a clear separation of roles. Behaviour tends to be regulated in terms of role expectations. Parents would tend to regulate their child's behaviour closely in terms of class, age and sex role expectations. Position-oriented families tend to use restricted code.

Finally, Bernstein distinguishes between imperative modes of control and control by appeal. The former is realized through restricted code (for example 'get out') or through physical coercion (Bernstein 1971).

Bernstein identifies two types of control by appeal, positional and personal. Positional appeals "refer the behaviour of the regulated 'child' to the norms which inhere in a particular or universal status" (Bernstein 1971:157). In personal appeals, on the other hand, the focus is on the individual rather than on formal status. Bernstein postulates that position-oriented families use an imperative mode of control, whereas person-oriented families tend to use personal or positional appeals.

Diagrammatically Bernstein's model is as follows (see Thorlindsson 1974):

SES	Family types	Modes of control	Linguistic codes
Lower class	Status-oriented	Imperative modes	Restricted codes
Middle class	Person-oriented	Personal or positional appeals	Elaborated codes

Bernstein's work is essentially a socio-linguistic theory of socialization which is both empirically and theoretically founded on the idea of linguistic codes. Therefore, although drawing heavily from Bernstein's theory, the theoretical emphasis and the empirical focus of this study concerning adolescent socialization will differ significantly from Bernstein's work. This will be discussed more fully in the next section on the more 'sociological' family communication patterns.

To conclude, a considerable body of research and theory suggests that class related parental values in socialization are responsive to variations in the cultural resources of the adolescents, and hence may well affect their success in future life.

3.3 Family Communication

In this section, we shall examine a family interaction model used in mass communication research. This model explores more sociologically the same intra-family effects of socialization found in Bernstein's sociolinguistic approach.

The socialization perspective makes it necessary to specify the learning mechanisms involved in adolescent development. Three common explanations of learning are: Modelling, reinforcement, and social interaction (e g McLeod och Brown 1976).

Modelling is the simplest explanation of learning. The child learns through imitation the behaviour of the socializing agent. Early studies of children and television (e g Schramm et al 1961) used the correlation between the media use of children and their parents as evidence of parental influence on children's TV use. But as McLeod and Brown rightly point out:

"Various third variables, such as the common social class of the parent and child, may account for the correlation. Another possibility is reverse causation, the child's way of behaving affects the parents' viewing".
(McLeod and Brown 1976:209)

Another threat to the modelling interpretation is the simple physical opportunity to view TV, depending on factors such as TV ownership, TV time offered and channels available.

Reinforcement. The use of direct rewards and punishment to influence television behaviour is unlikely to play a great part in children's television viewing, because most parents never try to use this method. "Overall, there is only a rather meagre amount of evidence making a connection between reinforcement learning mechanisms and adolescent television use". (McLeod and Brown 1976:212)

Interaction. The social interaction view of the learning process sees as its key source the norms and values shaping and restricting people's interactions. These interactions are seen as differing structurally in different subcultures of the society.

In mass communication research, an attempt to measure these interpersonal relationships in socialization has been conducted at the University of Wisconsin's Mass Communications Research Center, led by S H Chaffee and J McLeod, (e g Chaffee et al 1971, 1973, McLeod et al 1972, McLeod and Brown 1976, and Chaffee and Tims 1976).

Chaffee et al (1973) state that parent-child communication is one of the most pervasive forces in adolescent development. But parental knowledge and values need not be transmitted directly.

"What the parent knows may be less important than how he transmits it to his child. For that reason, it is important to look more closely at the process of socialization and at such factors as the patterns of parent-child communication. Each family develops such characteristic patterns, and there are major and consistent differences between families in these patterns". (Chaffee et al 1973:349)

In their studies of family communication patterns, Chaffee et al have developed a two-dimensional model. One dimension is the degree to which the family emphasizes social harmony. This dimension is labelled 'socio-orientation'. The other is the degree to which the family emphasizes intellectual expression and is labelled 'concept-orientation'.

'Socio-orientation': Here, the parents encourage their children to maintain harmonious personal relationships, they may be advised to give in on arguments, avoid controversy and repress anger. This kind of relation may be pressed on a very young child (e g Chaffee et al 1971 and McLeod and Brown 1976).

'Concept-orientation': Here, the child is stimulated to express his ideas and to challenge the beliefs of others. He is stimulated to look at more than one side of an issue.

"The child learns to cope with the world in terms of these family structural constraints and they serve as a cognitive map to guide her or him in situations outside the home. Use of media is one manifestation of the child's coping style". (McLeod and Brown 1976:213)

But theoretically, as Chaffee et al (1971) point out, it is the structure, not the specific contents of parent-child communication, that the child learns to generalize.

The social origins of these orientations are, of course, of great importance. Wade (1973), discussing this problem, points out that in one piece of research done on these family communication patterns (McLeod et al 1972), social class was related to both measures (-.25 with socio- and .41 with concept-orientation) indicating that the measures may simply be operational definitions in family communication terms of the usual middle class versus working class socialization patterns discussed here in chapter 3. (Kohn's conformity versus self-reliance families and Bernstein's positional versus person-oriented families.) Recognizing this possibility, Chaffee et al (1973) speculate that some apparent effects of family communication might be spurious in that they were explicable by social class alone, but after controlling for social class they state that their inferences are not changed substantially by this control. While McLeod and Brown state:

"The social origins of these orientations appear quite complex. Working-class homes show some tendency to stress socio-orientation, while middle-class families give more attention to concept-orientation. The differences are not that strong, however, and the orientations have relationships to cognitive processes that do not seem explainable as simple products of social class". (McLeod and Brown 1976:213)

One of the aims of the present work will be to analyze this relationship between social class and family communication patterns, in a different cultural setting from the original American studies.

Chaffee and McLeod found that the socio- and concept-orientations are positively correlated only to a very slight extent (e g Chaffee et al 1971 and Chaffee et al 1973). They, therefore, formed a fourfold family communication pattern typology by dichotomizing each dimension at the median.

A) Laissez-faire families emphasize neither type of relation. For the most part, there is simply little parent-child communication, and the child seems to be more influenced by peer groups.

B) Protective families stress socio-relations only, and there is little concern with conceptual matters that would expose the child to the controversial world of ideas. The child has, therefore, little chance of obtaining information on which he might base his own views.

C) Consensual families attempt to stress both orientations. The child is faced with conflicting pressures to take an interest in the world of ideas, but without disturbing the internal harmony of the family.

D) Pluralistic families stress concept relations. The child is encouraged to make up his own mind and explore new, often controversial, ideas without damaging social relations in the family.

Not all researchers, however, using the family communication pattern have found it useful to construct this fourfold typology. Wade (1973) found that the lower discriminations of the socio-items render the measure a better over-all indicator of the presence or absence of the concept-orientation than a range of socio-

to-concept scores. Wade also thinks that the family communication pattern measures need greater depth. She also maintains that improvement of the socio-items is needed. They more often measure dogmatic than harmonious communication behaviour.

3.4 Stages of Cognitive Development

In this section, the last one in the chapter, a brief account of cognitive developmental theories will be given. These theories have been used in the mass communication literature most explicitly by Noble (1975) in England, and by Wartella and Ettema (1974) and Wackman and Ward (1975) in the USA. Generally, cognitive developmental theories are stage theories. Among these, Piaget's theory of intellectual development is certainly the best known.

Piaget (Piaget and Inhelder 1958) states that the individual undergoes qualitative changes in his or her cognitive skills when moving from one cognitive stage to another, starting with the sensorimotor stage (ages 0 - 2) and continuing to the preoperational stage (ages 2 - 7), the concrete operational stage (ages 7 - 12) and finally to the formal operational stage (12 and onwards). As our population consists of children and adolescents at the ages of eleven and fifteen, the developmental stages of concrete and formal operational cognitive skills are of central importance.

At the concrete operational stage (from six to eleven), the child is able to use operations in his thoughts and is not longer restricted to his immediate environment. The child's intellectual capacity is, however, still limited to solving only concrete problems in his everyday life. In the formal operational stage (from twelve years onwards), the adolescent is capable of living in the future as well as in the present, and of using formal logical operations in his interaction with the

world around him. Further, the adolescent at the formal operational stage has achieved the ability to think reflectively.

Building on these differences in the mental ability of eleven versus fifteen years old children and adolescents, one aim of the present study is to explore empirically their consequences on the origins and effects of adolescents' TV use.

4. THEORETICAL FRAME, RESEARCH QUESTIONS AND BASIC HYPOTHESIS

In this chapter, we shall state more fully our basic hypotheses concerning adolescent mass media use and its consequences, building on the theoretical discussion offered in the preceding chapters on socialization and mass media use. More specifically, we shall approach the following tasks:

- 1) The theoretical frame of the present study will be integrated with sociological and mass communication theory.
- 2) Research questions salient to that particular frame of reference will be raised.
- 3) A conceptual model of adolescents' mass media use and its effects, which address the research questions asked, will be constructed.
- 4) The conceptual model will be linked causally to the theoretical frame of reference, and from that linkage the basic hypotheses will be deduced.
- 5) Finally, empirical procedures to test our conceptual model will be outlined.

4.1 Theoretical Frame of Reference

When studying adolescents' media use and the consequences following that use, three conceptual constructs are seen as essential:

- A) The cognitive development of the adolescent
- B) The different socialization agents (family, peers, school etc) acting on the adolescent

- C) The character and content of the mass media used by the adolescent.

Evidently, the conceptual constructs chosen invite a differential socialization perspective on adolescents' media fare. More explicitly, we have to study the different socialization agents as well as the cognitive status of the adolescent being socialized and how they interact in influencing adolescents' mass media experiences. The socialization role of the family is of central interest, although peers too are seen as having a great influence. The impact of the school is recognized, but not studied for reasons of reducing the complexity of what is already, in many ways, an overcomplex research undertaking.

How do different sociological and mass communication theories succeed in combining these conceptual constructs, so as to give a coherent account of the delicate processes underlying adolescents' media use, and the effects of that use?

As discussed, recent mass communication research, like most sociological research, has explicitly, or more often implicitly, been guided either by some kinds of functionalistic perspectives or some variant of conflict theory (McQuail and Gurevitch 1974). Further, mass communication researchers have divided themselves between the uses and gratifications and the effects traditions (Windahl 1980). One aim of this study is to identify central causal features of these different theoretical perspectives when operating on the conceptual constructs of cognitive development, differential socialization and the character and content of the mass media. These causal features will be integrated into a conceptual model designed to explain adolescents' media use and its consequences. Empirically, we shall operationalize the conceptual model and identify a structural equation model that allows for simultaneous evaluation of causal arguments of the different theoretical perspectives.

Let us first consider the functional versus conflict dimension. One alternative open to those students who do not accept the uses and gratifications approach's functional implications, based on basic human needs, could be what McQuail and Gurevitch (1974) have labelled the 'structural/cultural' perspective. If the functional perspective stresses consensus as the regular state of society, then it can be said that the 'structural/cultural' perspective stresses conflict as the determining force of society.

Piepe et al (1978) note that today, both theoretical traditions building on Durkheim's functionalism and on Marxist theory are in agreement on the central importance of 'normative integration'. But their starting points are in complete opposition to each other.

The functionalists are concerned with accounting for the maintenance of the present structure of society without which the individual would experience serious problems in defining his place in life. Functionalistic mass media researchers are, therefore, mainly interested in the integrative effects of mass communication. Golding and Murdoch (1978:344) state that the "functionalists seek the way in which the media convey values from one generation to the next". The concern of the conflict theorist, on the other hand, is to account for the stability of a social structure which greatly mis-favours certain social strata of society.

Conflict theories' concern with an uneven division of economic, political and - most important in our case - cultural and social resources, will be the basic departure point in our theoretical frame of reference. In particular, the focus will be on the relationship between media use and these resources as they manifest themselves in the differential socialization values and behaviour of the different groups in society. As Golding and Murdoch point out, this theoretical frame of reference entails "exploring the relations between

communication systems and other agencies through which disadvantaged groups are incorporated into the existing social order" (1978:353). When concerned with adolescents, we have to explore in what way mass communication and family work together in the distribution of social knowledge and cultural competence.

The effects of the parents' class position are mediated to the adolescent through personal interaction in the family. As Marx has emphasized, the influence of social organizations on human communication is rooted in human activity, especially in man's relationship to the means of production at a given time.

For Mead, human communication emerges from human activities in the process of social interaction. Drawing from the works of Marx and Mead, the argument will center on the view that human communication is mediated by human activity of a group and family nature, thus seeing the individual as active, and also acted upon, but on the other hand, in so doing, bypassing the uses and gratification theorists "Implicit rejection of the cultural level of analysis in the study of communications, by reducing the richness, diversity and ambiguity of symbolic codes to underlying dispositional constants". (Piepe et al 1978)

This makes it necessary to attend to the social structures of society. We, therefore, have to pay more serious attention to theoretical linkages between the macro-sociological variables of social class and the micro-sociological family interaction variables mediating the effects of the parents' social position to the adolescents.

Different classes and social groups in society have different life experiences depending on their kind of work, neighbourhood, social activities, etc. From these life experiences, we believe, it is possible to explain

a fair amount of adolescents' mass media use and effects in terms of differences, in, as McQuail and Gurevitch (1974:291) put it: "customs, norms, and conventions - defining what counts as appropriate ways of using the reacting to media provision - that prevail in particular social settings". In short, differential socialization is seen as essential for explaining adolescents' media use and the consequences of that use (see section 3.2 for a theoretical discussion of differential socialization). The theoretical frame sketched in this chapter is in many parts in accordance with McQuail and Gurevitch's 'structural/cultural' approach mentioned earlier. They have made a paradigmatic comparison of the functional and 'structural/cultural' approaches (McQuail and Gurevitch 1974), presented in Figure 4.1. Starting from the functional formulations by Blumler-Katz-Gurevitch (1974) the concern is with:

- 1) The social and psychological origins of
- 2) the needs which generate
- 3) expectations of
- 4) the mass media or other sources which lead to
- 5) differential patterns of media exposure or engagement in other activities, resulting in
- 6) need-gratification and
- 7) other consequences.

Note that in comparing the functional and 'structural/cultural' approaches some difficulties arise because the terminology of the two approaches differ.

Despite the terminological difficulties, however, we clearly see from Figure 4.1 the differences between the functional and 'structural/cultural' models. The main difference between McQuail and Gurevitch's 'structural/cultural' approach, and the 'differential socialization' approach taken here lies in the emphasis on family interaction and the active, although socially constrained nature of the audience. The audience must be viewed as, at least, partly active in their media use, especially in the case of higher class adolescents, having fewer social constraints than lower class adolescents. If we differ from the 'structural/cultu-

	Origins	Needs	Expectations of Mass Media	Media Exposure	Gratification of Needs	Consequences for Media use	Consequences for Individual and/or Social System
Actions/ Motivation	Reason, chance individual and varied	Personally chosen projects	Actively formulated open-ended	Selective varied unpredictable	Individual judgment satisfaction	Further choice-making	Self enhancement and development
Structural/ Cultural	Generally patterned by culture and social structure conditioned by past experience of content	Externally imposed and defined, with limited choice	Culturally given, shaped by contextual and group norms result of socialization	Predictable and regular unselective	Fulfillment of a given expectation	Reinforcement of pattern of media use	Consistency and continuity of individual collective link
Functional	Personality past and present social situation and opportunities	Responses to stimuli in environment	Individual need satisfaction	Systematically related to needs and expectations through selective exposure and perception	Homeostasis Need-reduction	Varies according to variation in needs-salience	Contribution to more effective performance of personality and social systems

Figure 4.1 A Paradigmatic comparison of three approaches explaining audience behaviour (From McQuail and Gurevitch 1974)

ral' approach by allowing for some degree of activeness on the behalf of the audience, we differ from the traditional uses and gratifications approach by emphasizing the importance of social constraints upon that activeness. In short, the functionalistic nature of the uses and gratifications model is able to cope more successfully with the media behaviour of higher class adolescents than with lower class adolescents. The media behaviour of the lower class adolescents, presumably being more socially constrained, more often leads to a passive and ritualistic media use which the uses and gratifications approach is unable to account for, either in terms of exposure or consequences. The functional model, therefore, is theoretically unable to explore the social significance of the fact, that differences in people's access to economic and cultural resources lead to differences in media use and media consequences, which in turn, working as a catalyst, further widens the gap of socially desirable knowledge and skills between the different groups in society engaged in mass media use.

To conclude these remarks on functional versus conflict theory in mass communication research, we explicitly state, in agreement with Bernstein (1974:158), that the main task of social research is to show how the prevailing distributions of property and power and the dominant principles of control "shape the structure of symbolic arrangements, how they enter into our experience as interpretative procedures and the conditions of their repetition and change". However, we have no illusions that the theoretical frame put forward here solves successfully the functionalistic problems. The implications in this conflict oriented frame of reference have major points in common with the functional position (e.g. the use of 'system' as focal point of analysis), which we set out to attack. Giddens states this bluntly:

"Conflict theory, we think, is the other side

of the structural-functional coin, and is characterized by most of the same limitations". (Giddens 1973:14)

Let's now turn briefly to the theories of mass communication: the uses and gratification versus the effects traditions. While McQuail and Gurevitch have addressed the problem of functional versus conflict theories in communication research, Windahl (1980) explored the paradigmatic differences in the uses and gratifications and the effects approaches and a possible synthesis of these research traditions.

Differences: Exploring first the differences between the two traditions, we discuss here three dividing lines felt to be of especial importance. First, the notion of the active audience is central in the uses and gratification thinking, while it is rather contrary to the effects traditions line of reasoning. This is a difference which Windahl (1980:8) summarizes as 'that between action and reaction'. Bear in mind here, however, that the 'activeness' of the audiences has played a more important role in the debate on the uses and gratification approach than in actual research. While disputing the value-laden notion, sometimes found in uses and gratification theory, of what Blumler (1979) has described as the "liberal rational beliefs in human dignity and the potential of individual for self-realization" we feel that stressing some degrees of activeness on behalf of the audiences is one of the more important contributions of the uses and gratification approach not found in the effects tradition. Second, Windahl outlines the fact that the traditions have different perspectives on the mass communication process according to sender or receiver:

"The effects researcher most often looks at the mass communication process from the communicator's end, whereas his fellow colleague, using a uses and gratifications paradigm, starts at the other end, taking the audience member as a point of departure". (Windahl 1980:8)

Finally the different traditions describe the outcomes of the mass communication processes differently. The uses and gratification approach is concerned with the consequences of mass media use, while the effects tradition explores the effects of the mass media content consumed.

Similarities: Turning to the similarities of the two approaches in question, Windahl finds them easy to discover:

"In this case the similarities are not very difficult to find. Although the two traditions may be interested in different types of outcome, it is a fact that both deal with outcomes of the processes they describe".
(Windahl 1980:10)

Most uses and gratifications studies include some kind of consequences in their theoretical framework, if more seldom in their empirical part (cf Katz et al 1974). According to Windahl this latent effects element in the uses and gratification approach has promising implications for a possible synthesis between the two traditions.

On the other hand, effects studies often incorporate some kind of media 'uses' in the form of exposure. Interchanging the different but closely related concepts of 'media use' versus 'exposure' on one hand and 'consequences' versus 'effects' on the other hand, a combined 'uses and effects' model is advocated by Windahl in his theoretical work.

Building on this line of reasoning, one central aim of the present study is to explore how differences in media use, especially TV, lead to different 'consequences' or 'effects' on the conceptual world of adolescents from different social milieux and cognitive stages.

4.2 Research Questions

Our 'differential socialization' frame of reference leads to specific research questions which need to be answered when analyzing adolescents and the interlocking processes of: I) cognitive development, II) differential socialization and III) mass media consumption.

I) Cognitive development: The concept of cognitive development invites the central question asked by McLeod and Brown (1976:202-203): "Are there systematic changes in media behaviour of youth during the years of adolescence?" and if so, which?

II) Differential socialization: What is the relationship between adolescents' media behaviour and the social and structural constraints that shape the adolescents' life experiences? More precisely, what is the connection between, on one hand, the social class position and socialization norms of the adolescents' parents and, on the other, possible patterns of media use and effects? Further, as a consequence of the interplay of cognitive development and social constraints, do family influences increase or decrease as the adolescent grows older, or is the relationship more complex, so that for some patterns of media behaviour the importance of family influence increases and for others it decreases? If so, which? Finally, if and where parental influences decline, what other socialization agents, if any, take over the role played by the family? Especially, how do the competing influences of parents and peers manifest themselves as the adolescent enters middle and late adolescence?

III) The character of mass media consumption: Following the 'uses and effects' synthesis we have to ask if adolescents' mass media use has important and direct consequences for the adolescents' conceptions about themselves and the world they live in? Finally, combining the 'differential socialization' and 'uses and ef-

fects' lines of reasoning, the question must be answered, how the consequences of mass media use are reinforced and/or undermined by the ongoing processes of differential family socialization patterns and changes in cognitive developmental stages?

4.3 Conceptual Model of Adolescents' Mass Media Use and its Effects

Like much sociological research (see Isaac, Mutran and Stryker 1980 on political protest), the research on mass media use and effects has generally had severe shortcomings: research is usually not explicitly tied to a theoretical framework (see Elliott 1974). Few attempts have been made to incorporate more than one theoretical perspective into a coherent model, and virtually no attempts have been made to test such a model empirically. These problems will, to different degrees, be addressed in this study. More specifically by:

A) explicitly challenging the functional aspects of the uses and gratifications approach, replacing these aspects with a more conflict theory oriented 'differential socialization' approach. B) Within that framework, integrating causal arguments from both the uses and gratifications and the effects traditions into a single 'uses and effects' conceptual model (Windahl 1980). C) Finally, empirically estimating the conceptual model proposed.

Figure 4.2 presents a conceptual model of adolescents' mass media use and its consequences, while Table 4.1 lists the measuring instruments used to represent each box in Figure 4.2.

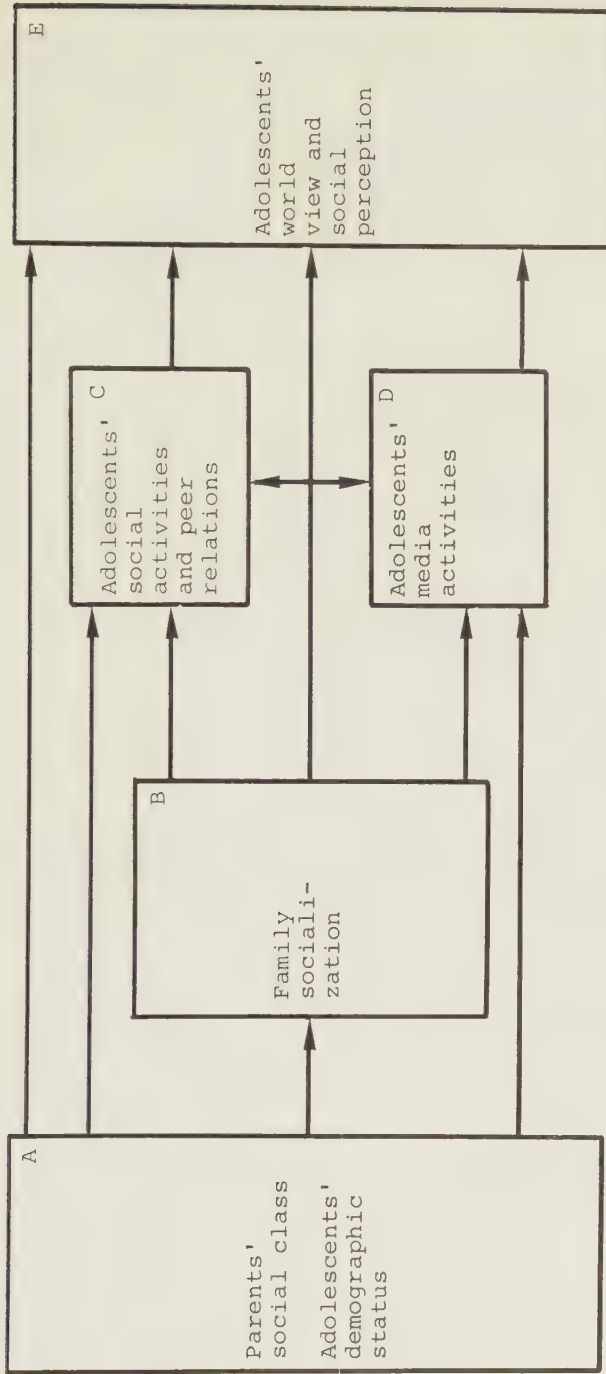


Figure 4.2 Conceptual model of adolescents' mass media use and its consequences

Table 4.1 Overview of Measuring Instruments from MPP used in the Present Work (The litterae correspond to the litterae of the boxes in Figure 4.2)

A. Parents' SES, Child's demographic status

Parents' social class	Child's sex
	age
	grade
	siblings

B. Family socialization

Parents' TV habits and preferences
attitude to TV and to child's TV
use (Brown, Sonesson)
knowledge about, and control of
child's TV consumption
Family communication pattern (Chaffee et al)

C. Adolescents' social relations and activities

Interaction with peers
Special activities (sports, hobbies, clubs etc)

D. Adolescents' media relations and activities

TV consumption
TV preferences (type of content)
TV relations (Capture, Long-term identification)
Dependence on TV

E. Child's world view and societal perceptions

'TV answers' on questions about professional groups, violence in society and the population of USA (Gerbner)
Recent events within and outside Sweden (Himmelweit)
Dream job in future (Broddason, Himmelweit)
Real job in future

The model, as can readily be seen, owes much to the overall conceptual scheme of the Media panel program, presented on page 3, developed by Rosengren and Win-dahl (1978). The arrows indicate the causal links

hypothesized between the different boxes in the model. This model combines theoretically important causal factors from the competing approaches discussed: functional and conflict theory on one hand and the uses and gratifications and effects traditions on the other hand. Although incorporating these different perspectives, the overall implication of the model is that of conflict theory, or more specifically, differential socialization. It leads us to view structural constraints (e g social class and age) as operating through the intervening processes of 'interactional' factors (e g family and peer socialization) to affect adolescents' media use and the consequences thereof.

As with the uses and gratifications approach the model is individual or audience centred rather than content oriented as with the effects tradition. Although the model incorporates the effects of different media content, it is the adolescent regarded within his social and cultural environment, who dominates the structure of the model. Instead of internal need structures, universally distributed in the population, the present model suggests that media use and effects differ in different subcultures and groups in society, engaged more or less activity in media fare. These different patterns of media behaviour are held to be predictable on the basis of theory of socialization. The causal implications of the conceptual mode will now be drawn out in the light of the research questions proposed above.

Cognitive Development: Based on the cognitive developmental theory of socialization, using age as a proxy variable for cognitive development (Kohlberg 1969), most of our younger (11 years) adolescents are seen as being at their concrete operational stage (Piaget and Inhelder 1958) and the older adolescents as being at their formal operational stage (15 years), of development. From this theoretical departure, it is hypothesized that age has a direct influence on adoles-

cents' media use and its consequences (A on E and F in the model). As the adolescents grow older their media use should become more diversified and active, enabling the adolescents to take account of, and understand, more complex media messages (Faber, Brown and McLeod 1979). Thus age is expected to relate negatively to TV use and positively to preferences for informative media content (box E) and realistic world view and social perceptions (box F). Furthermore, as a consequence of this change in media behaviour, the media are seen as playing an increasing role in forming adolescents' world view and social perceptions (E on F).

As Churchill and Moschis (1979) demonstrate, age can also have indirect effects on the adolescents' media use and consequences by influencing the family and peer socialization processes, these in their turn being determinants of media use and effects. As the adolescent grows older he or she is likely to claim increasing freedom from the family (Gesell 1956), thereby changing the family socialization climate (A on B). On the other hand, the adolescent is expected to show increased involvement in peer and other extrafamily activities (A on C), causing a positive relation between these variables.

Differential Socialization: Adolescents at the same cognitive stages, however, do differ significantly. The development of the adolescent does not occur in a social vacuum. Although there is a qualitative change by age, there is also a steady process of social learning going on (McLeod and O'Keefe 1972), that differentiates between adolescents growing up under the influences of different socialization agents with different values, attitudes and motivations. The life experiences of childhood and adolescence are based on the economic and social resources of the family. This holds true for all aspects of adolescent life: school performance, leisure activities and, most important in our case, mass media use and effects.

Media use: We have chosen to use the concept accessibility as a starting-point when discussing mass media use in general and TV use in particular. Adolescents have different accessibility to TV, depending on their parents' economic and social resources. This accessibility can be both physical and cognitive. Today, TV use is almost certainly the cheapest entertainment activity available to people. Most people in our society have physical accessibility to TV (by having access to one or more TV sets). This holds true for all social classes. Adolescents from the lower social classes have, therefore, for the most part the same physical accessibility to TV as adolescents from the higher classes have. On the other hand, the adolescents from the higher classes have greater accessibility to many other kinds of leisure activities than the lower social class adolescents. This, of course, is caused by the greater economic and social resources of the higher class parents. Therefore, we postulate: lower class adolescents are heavier TV viewers than are higher class ones (A+B on E). When writing here about cognitive accessibility to TV use, it does not refer to some individualistic needs which the adolescents might have for using TV. Cognitive accessibility means that adolescents, because of class differences in their socialization processes (chapter 3), have different possibilities for understanding and appreciating different TV programs. Higher class adolescents, coming more often from Bernstein's Personal and Chaffee's Concept oriented family's (see Chapter 3) and therefore, presumably better socialized in abstract thinking than lower class adolescents, are likely to more often prefer informative or reality oriented programs and appreciate them more than do their lowerclass counterparts (A+B on E).

World view and social perceptions: The position of the adolescent's family in the social structure, with consequent differences in socialization values and patterns is seen as contributing a direct influence on adoles-

cents' conceptions of reality (A+B on F). In line with earlier research, we expect higher class adolescents, and those from more concept or personal oriented families, to have more extensive and accurate knowledge of world affairs and social life than do their lower class counterparts.

As in the case of cognitive development (e g age) social class and differential socialization are also postulated to exert indirect influences on adolescents' world view and social perceptions through the process of differentiating adolescents' media use: (exposure, preferences and relations, and thus reinforcing or undermining the specific effects of mass media use on adolescents' conceptions of the world and the society they live in (A+B on E on F). The causal chain described here could, so to speak, be seen as at the heart of the conceptual model, with most of the initial different theoretical frameworks contributing to the causal reasoning. More specifically, these indirect different socialization influences could either be consequences of some broad patterns of socialization processes, like the family communication patterns (Chaffee et al 1973) discussed in chapter 3, or of more specific media-related socialization patterns, such as parents' attitudes to TV and to adolescents' TV use (Brown et al 1974), which in turn, are seen as depending on the broader socialization patterns. Here, as elsewhere, the conceptual model takes into account the mediating influences of the adolescent's own activities, both together with peers, and other leisure activities (Box C).

Cognitive development and differential socialization:

The combined influences of cognitive development and social class-differential socialization are, of course, extremely complex and subtle. As the adolescents reach the formal operational stage they begin the often painful process of taking on the role of full-fledged members of the society. Their range of activities and interests expands while at the same time

their independence from the family increases. As previously postulated, adolescents with higher class socialization are presumably better equipped, through parental training, to tackle the complex world outside the adolescents' immediate social environment. The influences of social class-differential socialization on mass media effects should, therefore, increase as the adolescent enters middle and late adolescence, when the unit of analysis is the adolescents' conceptions of social reality.

Similarly, the intervening influences of adolescents' social activities and peer relations (Box C) should increase as the adolescent becomes a more independent member of society.

The character of mass media consumption: Finally, drawing on the effects traditions part of the conceptual model, we anticipate direct and unique effects of mass media use (exposure, preferences and relations), over and above the mediating ones listed above on adolescents' conceptual images of the world (E on F). These effects can either be pro- or anti-social, depending on the relevance of the subject matter for the particular adolescent.

4.4 Empirical Model

Having established, according to our overall theoretical frame of reference, the causal order of the conceptual model in Figure 4.2, the task of putting the conceptual model to an empirical test presents itself.

As mentioned, most attempts to evaluate different theories concerning adolescents' mass media use and its consequences have failed to combine hypothesized causal factors into one single model. As a result of this both theoretical and empirical risks are taken. Empirically, spurious relationships can distort our inter-

pretation of the data. Theoretically, we can be led to support or discard different theories on false premises. If on the other hand, a single causal model could be constructed and estimated, the different theoretical explanations could be evaluated simultaneously.

In the last years new statistical techniques utilizing structural equation models have been developed that make such evaluations possible. The importance of these techniques for theory building and testing is pointed out by Baltes et al who state:

"Keep in mind that any explanatory power gained from using structural models is as much a function of having a well-articulated theory of causality as it is of using sophisticated mathematical and statistical techniques". (Baltes et al 1977:242)

The use of structural equation models with survey data calls for explicit theory about the causal nature of the system under study, as well as elaboration in the operationalizations of the concepts involved. If these premises are met, the use of structural equation models may help bring about the merging of theory and data analysis so often called for and so seldom presented in the literature. In the case of complex and long term phenomena, such as those as addressed in the Media Panel Program, structural equation models are held to be of especially great explanatory value.

In the present study, we have chosen to work with a full-information maximum likelihood program labelled LISREL (Jöreskog and Sörbom 1978). This program is presently becoming widely used in sociological research (Kohn and Schooler 1978, Isaac, Mutran and Stryker 1980). The technical details of the LISREL model are discussed in section 1.2, along with other statistical techniques used in this study.

In chapter 8 the conceptual model will be operationalized and empirically estimated with the LISREL pro-

gram. The estimation will be carried out separately for 5th and 9th grade adolescents, thereby allowing an examination of the mechanism by which the causal variables of the 'use and effects' model operate on adolescents' media use, as well as their effects at different cognitive stages in the lives of the adolescents.

However, in the following chapters the relationships between the various boxes of the conceptual model will be analyzed one at a time. Statistically, these analyses will be conducted with appropriate techniques, in most cases analyses of variance and cross-tabulations. All the statistical techniques used in this study are described in section 1.2.

5. FAMILY SOCIALIZATION AND SOCIAL CLASS

In this chapter the family socialization variables (Box B in Figure 4.2) held to be variables intervening between adolescents' class and their TV uses and effects, will be related to social class and to each other. The family environment is measured on three different dimensions. Using Chaffee's family communication pattern, the intention is to capture some interactional aspects of family life. Brown's parental attitude scales to TV and to adolescents' TV use measure the family's specific inclination to use TV. Finally, measuring the parent's own TV use, the dimension of a possible parental exemplar is incorporated.

We are now in a position to specifically pose the questions referred to earlier. First, how are these different dimensions of family communication related to social class, and second, how are they related among themselves? In the preceding chapters, a body of literature documenting different socialization values of working and middle class parents has been presented. Drawing on the work of Bernstein in England and Kohn in USA (Chapter 3), it may be maintained that the character of the adolescents' life style depends to a fair extent on the occupational skills which link their parents to the social structure of society. The family's position in the social structure shapes the family processes that provide the adolescents with basic concepts about the world he or she lives in (or, in other words, the adolescents' mental maps). On this theoretical basis all the family socialization dimensions specified here are expected to be significantly related to social class. We turn now to an empirical examination of these postulations, starting with the family communication patterns.

5.1 Family Communication Patterns

In Chapter 4 above we have presented a theoretical discussion of family communication patterns. In this chapter, we shall analyze the causal relationship between the family communication patterns and social class. The hypothesis will be that the origins of the socio and concept dimensions lie mainly with differences in working class versus middle class socialization norms (see Chapter 3). It seems to us that the socio and concept variables are close to being merely an operational definition, on a micro level, of the macro level social class differences in socialization norms. On the one hand, the socio orientation, by stressing conformative family relationships, makes use of one of the most typical features in working class socialization, as is shown by the work of both Kohn and Bernstein and their followers, discussed in Chapter 3. On the other hand, the concept-orientation is built on the self-reliance factor in middle class socialization. We hypothesized, therefore, that working class parents will stress socio-orientation, while middle class parents will stress concept-orientation.

5.1.1 Operationalizations

When the socio- and concept orientations were measured, the parents answered the following questions:

Socio-questions:

- a) We tell our adolescents that they should not argue their point of view in discussion with those who are older and more experienced
- b) that they should give in on arguments rather than risk antagonizing other people
- c) that they should not show anger in a group situation
- d) that if they are unable to discuss in a quiet and low tone, they might as well stop it

- e) that your point of view, as a parent, is the correct one, and should not be challenged by the child
- f) that the best way to keep out of trouble is to keep away from it
- g) that when something is difficult to explain to them, they will understand it when they grow up

Concept-questions:

- a) When we discuss something in our family, we also ask the adolescents their point of view
- b) We say to our adolescents that they should be able to listen to others, although they have different ideas and beliefs
- c) We find it self-evident that our adolescents should be encouraged to challenge our ideas and beliefs
- d) We say to our adolescents that getting their point of view across is important, even if others do not like it
- e) We have spirited family discussion of controversial matters like politics and religion, where different members of the family take different sides

The reliability in terms of inner consistency measured with the Alpha-coefficient, is very acceptable (see McKennel 1970):

Alpha: Socio-orientation = 0.90
 Concept-orientation = 0.93

Between the two dimensions, the average correlation was $r = .10$.

The socio-economic status of the parents is given on a 5-point scale including the occupational status of both the parents (1 is high status, 5 low status).

5.1.2 Socio-orientation

"The socio-orientation involves parental expectations

that the child should be deferential to his elders, maintain harmonious personal relationships and withhold his feelings" (McLeod and Brown 1976:213). We see clearly from this quotation that the main element in the socio-orientation is the conformity socialization norm. Therefore, it would be surprising if working class parents did not show stronger tendencies to stress socio-orientation than middle class parents.

Table 5.1 shows an analysis of variance (ANOVA) and multiple classification analysis (MCA). (Both these methods are described in more detail in section 1.2 on the study's empirical techniques.) In the table the socio-orientation is analyzed by social class with sex and number of sibling as control variables. The ANOVA statistic shows the significance of the relationships. For the MCA analysis, the R^2 statistics tell how much variance is explained by all the independent variables, while the Eta is the unadjusted or simple effects of the independent variables and Beta the adjusted effects, i.e. the effects when controlled for the other independent variables. The analysis is carried out separately for the 5th and 9th grade adolescents.

Two trends are apparent from Table 5.1. First, the importance of social class for the parents socio family communication orientations increases with age, from moderate strength for 5th graders to a rather strong relationship for the 9th grade adolescents. Second, the same age trend is at work in the case of sex and number of siblings. From being non-existent in the 5th grade the relationships between the socio-orientation and age and sex show some effects, if not strong, on the 9th grade level.

Examining more closely the social class effects, we find the relationship to be linear for both age groups. Furthermore, in both cases, the middle class groups (1, 2 and 3) means are under the grand or overall mean for the whole sample, while the working class groups

Table 5.1 MCA of the socio family communication orientation by social class, sex, and number of siblings. Separately for 5:th and 9:th grade

		5:th grade Grand mean = 1.49				9:th grade Grand mean = 1.59					
Variables		N	Unadj.	Eta	Adj. for indep.	Beta	N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS											
1		56	-.23		-.22		17	-.22		-.22	
2		88	-.15		-.15		30	-.27		-.28	
3		48	-.11		-.12		25	-.29		-.24	
4		86	.12		.12		38	.07		.06	
5		129	.16	.25	.17	***	74	.22	.36	.22	***
						.26					.35
SEX											
1 boy		209	.02		.03		99	.07		.08	
2 girl		198	-.02	.04	-.03	.04	85	-.08	.13	-.09	*
											.14
NUMBER OF SIBLINGS											
0		43	-.02		-.01		42	.20		.17	
1		333	.01		.01		130	-.05		-.04	
2		31	-.05	.03	-.08	.04	12	-.10	.18	-.10	(*)
											.15
MULTIPLE R SQUARED											
						.068					.170
MULTIPLE R											
						.261					.413

(4 and 5) means are higher than the average one. These results indicate that the dividing line lies between working versus middle class parents socialization norms, working class parents being more inclined to stress the socio-orientation in interaction with their children than middle class parents are. Finally, the social class effects are not affected by controls for the adolescents' sex or number of siblings. The increase in social class effects could indicate that working class parents go on stressing the socio-orientation even as the adolescents come into middle and late adolescence, while middle class parents seem to teach their older adolescents a more autonomous participation in society. This on the other hand should, of course, indicate stronger increase in the concept-orientation for middle class parents than working class parents as the adolescents grow older.

5.1.3 Concept-orientation

"The concept-orientation involves positive constraints to stimulate the child to develop her or his own views about the world, and to consider more than one side of an issue" (McLeod and Brown 1976:213). As with the socio-orientation, we would be surprised, reading this description, if the concept-orientation did not turn out to be highly class related, mainly containing aspects of middle class socialization norms discussed earlier.

Table 5.2 presents ANOVA and MCA analysis for the concept-orientation and social class, sex and number of siblings. From the table it is evident that the effects of social class on the concept-orientation are somewhat less than for the socio-orientation.

In other words, the concept-orientation is a more independent socialization dimension than is the socio-orientation. Especially in the case of younger adolescents

Table 5.2 MCA of the concept family communication orientation by social class, sex, and number of siblings. Separately for 5:th and 9:th grade

Variables	5:th grade Grand mean = 2.27				9:th grade Grand mean = 2.25			
	N	Unadj.	Eta	Adj. for indep. Beta	N	Unadj.	Eta	Adj. for indep. Beta
SOCIAL CLASS								
1	56	.12		.12	17	.32		.35
2	88	-.00		-.00	31	.09		.08
3	48	.17		.17	25	.08		.11
4	86	-.06		-.06	38	-.07		-.08
5	133	-.07	.19**	-.07	74	-.10	.26	-.11**
								.28
SEX								
1 boy	212	.03		.02	99	-.01		-.02
2 girl	199	-.03	.06	-.02	86	.01	.02	.02
								.04
NUMBER OF SIBLINGS								
0	43	-.05		-.04	42	.11		.14
1	337	.01		.01	131	-.04		-.05
2	31	-.03	.04	-.02	12	.05	.13	.06
								(*)
								.16
MULTIPLE R SQUARED				.041				.097
MULTIPLE R				.202				.311

the strength of the relationship, although significant, is not impressive, and furthermore, also not linear, minimizing the amount of explained variance (R^2). The strength of the relationship increases, however, as expected with age. The social class effects become moderately or relatively strong, as well as linear, for the older adolescents. Middle class parents become increasingly engaged in concept relations with their children as they grow older, while working class parents do not. A likely explanation is that middle class adolescents become increasingly concept-oriented themselves as they grow older, making it easier for their parents to communicate with in concept terms, while working class adolescents seem to continue their socio-orientation to a much higher degree throughout their adolescent years. As with the socio-orientation, neither sex nor number of siblings affects significantly the explanatory power of social class on the concept-orientated family communication pattern.

5.1.4 Family Communication Pattern Typology

The two family communication orientations are not opposite ends of the same continuum (see Chaffee 1973, McLeod and Brown 1976). The highest correlation between the two dimensions in several different samples of adolescents by the Wisconsin group is $r = .11$ (Chaffee and McLeod 1972). In the present study this correlation was found to be $r = .10$. It is easy to imagine parents emphasizing both, neither or some combination of the two orientations. As a result, in accordance with Chaffee et al (1973), we have constructed four different types of family communication, presented in Figure 5.1.

Figure 5.1 Family communication typology by grade

Socio-oriented communication	Concept-oriented communication	
	Low	High
Low	Laissez-faire	Pluralistic
	5th = 62	5th = 135
	9th = 45	9th = 57
High	Protective	Conceptual
	5th = 69	5th = 123
	9th = 45	9th = 58

The theoretical implications of these four types were discussed in section 3.3 above.

These four family communication types are undoubtedly related to the social position of the family. Thunberg et al (1979) hypothesize that pluralistic families are heavily represented in the highest social classes or categories, consensual families in the middle classes, protective families in the working classes, and laissez-faire in different marginal social groups. All these patterns, of course, are represented in all the social class groups, but we hold that a relationship exists, so that a certain communication pattern is strongest in a certain social class. In Table 5.3 we look at these relationships between family communication patterns and social class, using the 5-point social class scale to closely examine these hypotheses.

From the table we see that Thunberg et al's theory is significantly confirmed for most parts. Pluralistic families are most heavily represented in the upper classes and decrease sharply with lower social class. In contrast, protective families are most common in the lowest classes. The relationship between laissez-faire families and social class also fits the hypothesis.

Table 5.3 The parents' family communication typology by social class and grade (%)

FAMILY COMMUNICATION TYPOLOGY	5:th grade						9:th grade						67
	Social class						1						
	1	2	3	4	5	N	1	2	3	4	5	N	
Laissez-faire	9	19	14	16	14		6	17	25	17	18		
Protective	14	16	14	28	31		11	10	11	26	34		
Pluralistic	47	44	41	24	22		56	50	46	21	13		
Consensual	30	21	31	32	33		28	23	18	36	34		
%	100	100	100	100	100		100	100	100	100	100		
N	56	89	49	88	134	416**	18	30	28	42	76	194**	

This type of relationship for the 9th grade parents is strongest in social group 3, which is our most heterogeneous social group, with parents from higher and lower social classes. For the 5th grade parents, this type of relationship is strongest in social group 2. On the other hand, there is no evidence indicating consensual families to be more strongly represented in the middle classes than in the higher and lower classes. The consensual family pattern seems to be evenly represented in all social groups, with the exception of the heterogeneous social group 3, where in case of the 9th grade parents the consensual pattern is heavily under-represented.

All in all, the differences increase as the adolescents grow older, indicating once again increased effects of social class on family communication, as the adolescents become more autonomous participants in society.

5.2 Parental Attitudes to TV and to Adolescents' TV Use

When studying adolescents' mass media use and effects from a family socialization point of view, we have, beside the broad structural socialization norms measured with the family communication patterns, also to attend to the more specific parental attitudes that relate directly to TV and TV use if we are to expand our understanding of the complex processes underlying our research object. More and more researchers are acknowledging the importance of the family context for children and adolescents' media behaviour, and more importantly, are incorporating increasingly elaborate measurements of these phenomena in their studies. This trend is evident in USA in recent consumer studies (Churchill and Moschis 1979), and in their cultivation studies Gerbner and his colleagues have recently turned to these kind of processes in an attempt to reveal underlying structures salient to the explanatory power of their cultivation theory (Gross and Morgan in press). Earlier, J R Brown

and others in Leeds, England, attended to these problems. At the same time that Chaffee and his colleagues were occupied in developing and testing the family communication patterns in Wisconsin, USA, Brown and his group were constructing an extensive battery of scales measuring quantitatively the mothers' attitude towards television in general and their child's use in particular (Brown et al 1974, Brown 1974, Brown and Linné 1976). There were in all seven scales constructed by Brown and his colleagues.

In her work within the Media Panel Program, Sonesson (1979) has adapted these scales to Swedish conditions. Sonesson analyzed these parental attitude scales in relation to six year old children and their mother's TV use. In Piagets terms, these children were at the pre-operational stage. By and large, Sonesson was able to reproduce Brown's results. In the present study, the explanatory power of these scales (or some of them) will be tested for the TV use of children and adolescents at the higher developmental stages of concrete and formal operation levels (see the analysis in Chapter 6).

Brown and his colleagues wonder if the place of such parental TV attitude scales is in effects studies and not only in uses and gratifications studies as was originally intended.

"Of course what the Leeds research does not show is that these measures of maternal attitude, even though they are related to viewing behaviour, child content preferences, etc, will influence the effects process. We feel that they are extremely suitable candidates for inclusion as intervening variables in effects studies (Brown 1974b). Whether our assumptions are justified, and maternal attitudes do work in this way, must depend upon the outcome of further research". (Brown and Linné 1976)

The present study with its combined 'uses and effects'

design allows for at least a partial test of the TV attitude scales power as intervening variables for the effects of TV use. This aspect will be dealt with in due course (see Chapter 7). In this chapter, however, the relationship between the TV attitude scales and the broader socialization norms of family communication as well as social class will be examined.

Of the original seven TV attitude scales, only two are included in the present analysis. This is for two reasons. First, as discussed in section 4.4, one aim of this study is to test thoroughly a number of carefully developed variables rather than scan superficially all the variables available. The seven parental TV attitude scales not being the central focus of the study had therefore to be sized down. Second, preliminary analysis indicated the two variables chosen here to be far stronger predictors of adolescents' TV use than the remaining five variables are.

5.2.1 Operationalizations

The two TV attitude scales used have been labelled Positive and Addictive attitudes respectively.

Positive attitude:

The positive scale suggest a general positive attitude to television as a medium providing entertainment, relaxation and information for children. The items measuring this dimension of parental TV attitudes were:

- a) TV is the best form of family entertainment
- b) Watching TV is the best form of relaxation for children and teenagers
- c) TV is a necessary part of childrens' every day life

Addictive attitude:

The addictive scale suggests the underlying assumption

that children easily become 'addicted' to television, in other words, lose control over their own TV viewing. The items were:

- a) TV plays far too great a role in the lives of children and teenagers
- b) Watching TV can easily become a habit with children and teenagers
- c) TV takes up too much time among children and teenagers

The reliability of these two scales measured with Alpha-coefficients is rather low but acceptable.

Alpha: Positive attitude = 0.65

Addictive attitude = 0.77

5.2.2 Positive TV Attitude, Family Communication and Social Class

The questions to be answered in Table 5.4 below are how do social class and family communication patterns, as well as sex and number of siblings, affect the parents' positive attitude to TV and TV use? For the eleven yearsold adolescents' parents the relationships are not strong. Social class is moderately related to the positive scale. As expected, parents from the working class groups (4 and 5) are less restrictive in their view of the positive sides of television than are parents from the middle class groups (1, 2 and 3). For the parents of the fifteen year adolescents, the relationship, although moderately strong, is not linear, making all interpretations difficult.

For the family communication patterns only the socio-orientation is related to positive parental TV attitudes, weakly so for the 5th grade parents and moderately for the 9th grade parents. Parents stressing socio patterns in interaction with their adolescents are also the parents that are most positive to TV in general. Finally, the adolescents' sex and number of siblings

Table 5.4 MCA of positive parental TV attitude by social class, sex, number of siblings and family communication patterns. Separately for 5:th and 9:th grade

Variables	5:th grade				Beta	9:th grade				
	N	Unadj.	Eta	Adj. for indep.		N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS										
1	56	-.21		-.18		17	-.08		-.01	
2	88	-.15		-.13		30	-.02		.05	
3	48	-.02		.00		25	-.05		-.01	
4	86	.04		.02		38	-.21		-.23	
5	127	.18	.24	.16	**	73	.15	.22	.10	.20
SEX										
1 boy	208	-.01		.00		98	.02		.00	
2 girl	197	.01	.01	-.00	.00	85	-.02	.03	-.00	.01
NUMBER OF SIBLINGS										
0	43	-.02		-.02		42	.03		-.01	
1	331	-.00		-.01		130	-.02		-.02	
2	31	.08	.04	.09	.04	11	.15	.07	.24	.10
SOCIO ORIENTATION										
1 low	132	-.16		-.12		50	-.26		-.22	
2 medium	144	.03		.04		64	.11		.06	
3 high	129	.12	.18	.08	*	69	.09	.25	.10	*.21
CONCEPT ORIENTATION										
1 low	155	.10		.05		76	.06		.02	
2 medium	120	-.07		-.05		48	.06		.05	
3 high	130	-.05	.13	-.02	.07	59	-.12	.13	-.07	.08
MULTIPLE R SQUARE										
					.083					.109
MULTIPLE R										
					.288					.330

Table 5.5 MCA of additive parental TV attitude by social class, sex, number of siblings and family communication patterns. Separately for 5:th och 9:th grade

		5:th grade Grand mean = 1.77				9:th grade Grand mean = 1.52					
Variables		N	Unadj.	Eta	Adj. for indep.	Beta	N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS											
1	56	.13		.16			17	.05		.04	
2	88	.07		.09			30	.03		.08	
3	48	-.09		-.07			25	.13		.14	
4	85	.04		.00			38	.13		.15	
5	128	-.09	.12	-.11	(*)	.14	73	-.14	.17	-.17	.20
SEX											
1 boy	208	.03		.02			98	.07		.03	
2 girl	197	-.03	.04	-.02	.03		85	-.08	.10	-.04	.05
NUMBER OF SIBLINGS											
0	43	.01		.01			42	-.11		-.12	
1	331	.01		.01			130	.07		.08	
2	31	-.08	.03	-.08	.03		11	-.40	.18	-.42	*.19
SOCIO ORIENTATION											
1 low	132	-.13		-.16			50	-.14		-.21	
2 medium	143	-.05		-.05			64	.03		.04	
3 high	130	.19	.19	.22	***	.22	69	.08	.12	.11	(*) .19
CONCEPT ORIENTATION											
1 low	154	-.07		-.08			76	.02		.01	
2 medium	120	.07		.08			48	-.07		-.09	
3 high	131	.02	.08	.02	.10		59	.03	.06	.06	.08
MULTIPLE R SQUARED											
						.069					
MULTIPLE R											
						.262					

are not important factors in their parents' positive attitude to TV.

5.2.3 Addictive Attitude

Turning to the addictive TV attitude, Table 5.5, much the same pattern of effects is demonstrated as for the positive scale. For both grades, socio-orientation is the strongest and only effective predictor of the addictive scale. The social class influence is unclear and lacking in specific structure. There is no indication of distinction between working class and middle class parents when the subject matter is addictive TV attitudes. All in all, the social background of the TV attitude scales is a mixed bag. The effects are of no impressive strength, and consistent only to some degree. The most interesting result obtained is that parents stressing the socio-orientation in their interaction with adolescents hold stronger attitudes concerning the TV medium, while parents stressing concept-orientation do not.

5.3 Parental TV Behaviour

Different patterns of family socialization norms held to influence adolescents' TV use and effects have been presented. Beside these more general features of family ethos, we have to consider the more concrete or direct effects of the parents' own TV behaviour, as well as possible direct controls imposed on the adolescents' media use.

In the following section the parents' TV viewing and program preferences will be examined, in an effort to establish some of their social origins in terms of social class and family socialization. The possible modelling effects of the parental TV behaviour on the adolescents' TV use will be discussed in chapter 6 on adolescents' TV use.

5.3.1 Operationalizations

TV-viewing: Measuring the weekly time spent viewing television, both for parents and adolescents, an index consisting of six questions was constructed. The following questions were used:

Time spent watching:
 number of weekdays per week
 hours per weekday
 number of Saturdays per month
 number of Sundays per month
 hours per Saturday
 hours per Sunday

Program preferences: In line with the analytical procedures of the present work, considerable effort has been made to construct one reliable and solid measurement of preferences, rather than using many different simple measures of the TV preferences. To cover the diversity of TV programming a list of thirteen program types was constructed. Among those, the adolescents and their parents were asked to choose the three they liked most. We then proceeded to obtain a general index of TV preferences built on these program types. In order to obtain the best possible reliability, a group of 'experts' (fifteen participants in a interdisciplinary seminar on mass communication) ranked the thirteen program types from low (1) to high (13) according to the following six dimensions designed to measure the informative qualities of the programs:

Explicit information:

To what extent does the program type supply explicit, direct, rather precise information about factual matters?

Implicit information:

To what extent does the program type supply implicit, indirect, rather vague information about people and society?

Reality:

Does the program type portray reality or a fictional world?

Bread/Width:

Does the program type supply broad or narrow information about society?

Depth:

How deep and thorough is the information supplied by the program type?

Totality:

Is the program type's information fragmented or complete in its entirety?

The scores from all the six dimensions were added up for each program type, and rank ordered (Figure 5.2). The program types chosen by each respondent were then added together to yield a TV preference index, ranging from low to high preference potentials for informative TV content.

Figure 5.2 Thirteen program types and their scores of informative qualities

entertainment	5
quiz programs	10
nature programs	9
social reports, documentary etc	13
news	11
debate and interview programs	12
police/detective thrillers	1
TV theatre, drama	4
long films	3
series/serials	2
music	7
sport	5
teenage programs	8

5.3.2 TV Viewing, Social Class and Family Socialization

It has been hypothesized that working class parents view more television than do middle class parents. The reasons for this are many. One important reason is that middle class people have more diversified leisure activities than working class people. Another is that middle class people have stronger orientation towards 'book culture' which leads to a more negative disposition towards television than working class people have (Meyersohn 1965). Most research supports this difference between middle and working class people. In their book, *Television and Human Behaviour*, Comstock et al (1978: 293) state: "Our viewing data are clear: Viewing is inversely related to social class, for which we take income or education as surrogates". Many older studies have also found this same trend. Working class people watch more and favour television more than middle class people (Bower 1973, Bogart 1972, Greenberg and Dervin 1970).

Table 5.6 presents the analysis of parental TV viewing, social class and family socialization. From the table the overall pattern is clear. Social class and parental TV attitudes are rather strong predictors of the time spent in front of the TV screen, while, disappointingly, the type of family communication advocated by the parents does not seem to play any significant role in the TV viewing intensity. This particular result runs contrary to the American experience, where most studies by the Chaffee group and others have registered consistent relations between family communication and TV viewing (Chaffee et al 1973).

Social class: As predicted, higher class parents are lighter TV viewers than are lower class parents. The relationship is moderately strong. What is theoretically most interesting, however, is to establish if the parents' viewing habits change significantly according

Table 5.6 MCA of parental TV viewing by social class and family socialization. 5:th and 9:th grade combined

Grand mean = 21.83

Variables	N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS					
1	72	-5.88		-5.16	
2	116	-2.40		-1.75	
3	77	-4.01		-3.60	
4	128	2.31		2.36	
5	202	3.54		2.72	***
			.30		.26
SOCIO-ORIENTATION					
1 low	180	-2.29		-.74	
2 medium	212	.03		.01	
3 high	203	2.00		.65	
			.15		.05
CONCEPT ORIENTATION					
1 low	236	.46		-.67	
2 medium	170	1.12		1.36	
3 high	189	-1.58		-.39	
			.09		.07
POSITIVE TV ATTITUDES					
1 low	218	-3.97		-3.66	
2 medium	239	.82		.77	
3 high	138	4.85		4.46	***
			.29		.26
ADDICTIVE TV ATTITUDES					
1 low	173	1.14		.44	
2 medium	163	-1.19		-1.68	
3 high	259	-.01		.76	(*)
			.07		.09
MULTIPLE R SQUARED					.168
MULTIPLE R					.410

to the working versus middle class configurations. In other words, do the different social constraints that shape the life style of different classes in society bring about different TV viewing habits, so that we can speak of two separate styles of viewing habits? Conversely, is the change in viewing behaviour only gradual with no significant break occurring at the boundaries between working class and middle class families? As discussed earlier, in the combined 5 point family social class scale, categories 1, 2 and 3 represent the middle class groups while categories 4 and 5 are the working class groups. From Table 5.6 the indication is that the working class groups differ substantially from the middle class groups. The two working class categories have means above the grand mean while for the middle class categories the result is the reverse. To test if these differences are significantly confirmed, the ONEWAY analysis of variance in the SPSS program was used (see section 1.2 on statistical techniques for further discussion of this method). The method tests whether or not the means of the social class variable categories differ significantly from each other. Table 5.7 lists the pairs of groups that have means significantly different at the .05 level. The table demonstrates that both working class categories differ significantly from all the three middle class categories. On the other hand, neither categories 4 and 5 nor categories 1, 2 and 3 differ significantly between themselves. In the case of the parents' TV viewing habits, it can therefore be advocated that the dividing line between heavy and light TV viewers follows the invisible but effective boundaries dividing cultural and social activities according to whether the parents work on the factory floor or lower service occupations or are engaged in some kind of white collar occupations. It seems therefore perfectly legitimate to talk of middle class versus working class subcultures when discussing social class differences in TV viewing patterns.

Table 5.7 ONEWAY analysis of parental TV viewing by social class.
(Multiple range test: Scheffe procedure at the 0.50 level)
5:th and 9:th grade combined.

MEAN	Social class 1	Social class 3	Social class 2	Social class 4	Social class 5
15.9479	Social class 1				
17.8117	Social class 3				
19.4124	Social class 2				
24.0640	Social class 4	*	*	*	
25.1019	Social class 5	*	*	*	

(*) Denotes pairs of groups significantly different at the .050 level

Family communication patterns: As mentioned, the most noteworthy results concerning the family communication variables is the relative absence of effects on parental viewing habits. Also, the weak zero-order relationships are severely decreased when controlling or adjusting for social class and parental TV attitudes. The socio-orientation effects are more strongly related to TV viewing than the concept-orientation which fare ill in the controlling process. The family communication patterns seem, then, as theorized in section 3.3, to a great extent, to be equal to social class measured on a micro level.

TV attitudes: The TV attitudes constitute more media related dimensions, as discussed, while the family communication patterns are of a more structural character. Presumably as a consequence of these differences, the parental TV attitudes show strikingly different results from the family communication ones. First, the positive TV attitude, measuring a general favourable attitude to television use, is an especially reliable predictor of TV viewing. Second, the effects of the TV attitudes are relatively independent of social class and family communication norms.

5.3.3 Parental TV Program Preferences, Social Class and Family Socialization

One aspect of peoples' TV use is the type of TV content preferred. Some researchers, like the Gerbner group, hypothesize that television is "all of a piece" (Gross and Morgan in press), the entire system of TV messages is more important than selective exposure (see Chapter 7 on a more theoretical discussion on selective exposure) Earlier McLuhan thundered over the world: "The medium is the message" (McLuhan 1964). In this section we will examine the parents' TV preferences and the social origins thereof. In the chapter on the adolescents' TV use (Chapter 6), the effects of these parental TV prefe-

rences on the adolescents' own media use will be tested. Also, in order to throw some light on the 'all of a piece' or 'selectivity' controversy the different effects of preferences versus viewing will be compared. We turn now to the social origins of parental TV preferences.

In the case of social class we hypothesized that working class parents will prefer more 'fantasy' and fewer 'reality' programs than middle class parents. Research findings on this point are somewhat mixed, but most research seems to find social class to be a predictor of type of TV contents consumed, with working class people choosing more fantasy programs than middle class people (Comstock et al 1978, Israel and Robinson 1972). Most researchers, on the other hand, have found middle class people to prefer news and information programs more strongly than working class people do, but some researchers have found news viewing greatest for those with the least and the most education (Israel and Robinson 1972, Robinson 1971). This is probably due, in the former case, to lack of interest in other media causing greater TV viewing, and in the latter to interest in news content by the most educated. Commenting on this difference, using 'fantasy' versus 'reality' contents, Comstock et al state:

"The viewing of violence, but not the news viewing, fits the formulation of proclivity on the part of those with less education and income for mass media fantasy (Schramm, Lyle and Parker 1961), but whether the determining factor is immediate reward, as was originally argued, or salience (fantasy may bring immediate reward, but television violence also may be more salient for those of lower social status), or something else is unclear. The fact of news viewing, and the salience interpretation are consistent with the definitely greater propensity of those of lower socioeconomic status, regardless of age, to believe that they can learn things from television (Bower 1973, Greenberg and Devin 1970). Thus television's primary rôle for the general public as provider of entertainment becomes, for those of lower education and

income, modified by the greater degree to which their viewing is motivated by the belief that something can be learned". (Comstock et al 1978:302)

Table 5.8 presents the parents' TV preference for informative content index analyzed by social class and the family socialization variables. As is seen from the table, the social class effects are moderately strong and go in the expected direction. The working class groups (4 and 5) are below the grand mean in their preferences for informative programs while all the middle class groups (1, 2 and 3) are above the grand mean in their preferences. As with TV viewing, the family communication variables, socio and concept, although showing expected significant unadjusted effects, do not hold well up to controls for social class and TV attitudes. However, the concept oriented parents, as expected, show a weak tendency to prefer informative programs more than do parents low on the concept dimension. While the family communication climate does not play a large role in the parental preferences, the more specific 'positive' TV attitudes is of more central importance here. Moderately strong, even after controls, the relationship indicates that parents positively inclined to TV and TV use prefer fictional TV content while the more 'negative' parents prefer reality oriented program types. People with positive attitudes to using TV in general, appear to avoid informative or reality oriented TV programs in favour of a more fictive TV content. The positive attitude, therefore, seems to be a function of the entertainment character of television. In other words, if you are seeking immediate rewards, television seems to be doing a fine job.

5.4 Parents' Reports about Adolescents' TV Behaviour

On the preceding pages we have examined the parents' own TV behaviour and its relations to social class and family communication. Here we will analyze the parents'

Table 5.8 MCA of parents' TV program preferences by social class and family socialization. 5:th and 9:th grade combined

Grand mean = 6.85

Variables	N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS					
1	73	1.28		1.10	
2	117	.20		.11	
3	74	.11		.07	
4	125	-.33		-.34	
5	203	-.42		-.28	
			.26		.21***
SOCIO-ORIENTATION					
1 low	185	.46		.15	
2 medium	207	-.27		-.21	
3 high	200	-.15		.07	
			.15		.07
CONCEPT ORIENTATION					
1 low	230	-.48		-.31	
2 medium	176	.21		.17	
3 high	186	.39		.22	
			.18		.12*
POSITIVE ATTITUDES					
1 low	224	.49		.40	
2 medium	232	.07		.10	
3 high	136	-.93		-.83	
			.26		.22***
ADDICTIVE TV ATTITUDES					
1 low	169	-.08		.08	
2 medium	165	-.02		.02	
3 high	258	.07		-.07	
			.03		.03
MULTIPLE R SQUARED					.140
MULTIPLE R					.375

reports on their adolescents' TV usage and program preferences. Do these reports follow the pattern shown by the parents' own TV behaviour, or does the differential explanatory power of social class, family communication pattern and parental attitudes change? Also, how do the parents' reports differ between eleven and fifteen year old adolescents? Tables 5.9, 5.10 and 5.11 throw some light on these questions for the TV usage variable. (The adolescents' own reports on their TV use will be analyzed in the next chapter.)

5.4.1 Parents' Reports on Adolescents' TV Use

One aspect of the mass media climate in the family is the adolescents' actual TV viewing and program preferences as experienced by their parents. The central question to be addressed here concerns the social origins of the parental reports. Do the reports of the adolescent TV use follow the same pattern of relation to the social origins variables as did the parents own TV behaviour, or is there a discrepancy, and if so, in what direction? Ultimately, do the measurements of parental TV use and parental reports of adolescents' TV use show a coherent TV use structure for the whole family, reinforcing still the notion of the importance of family socialization, or are the individual differences between parents and their adolescents so great that the effectiveness of the family in case of adolescents' TV use could be reconsidered? Of course, only tentative indications on this subject matter can be obtained here, by the analysis of the parental reports on adolescents' TV behaviour.

From Table 5.9 we see that for TV viewing on the whole, the effects of social class and family socialization are quite similar for the parents' own TV use and their reports of the adolescents' TV use. Social class and positive TV attitudes are found to be influential, and rather independent, factors in the parents' reports,

while again, rather disappointingly, the broad socialization dimensions, measured by family communication patterns, do not contribute much to our understanding of differential parental experience of their adolescents' TV use. This fact is especially true after taking account of the MCA controlling process.

In particular the moderately strong effects of the socio-orientation are severely minimized when we control for social class and TV attitudes. As in the case of the parents' own TV viewing, the socio-orientation is demonstrated to be predominantly a micro level expression of social class effects. Finally, as with the parents' own viewing, a theoretically important question is, whether middle and working class parents' reports differ significantly from each other. From Table 5.10, presenting the ONEWAY test of differences, it is evident that the middle class versus working class differences are as persistent for the parents' reports on the adolescents' as for the parents own viewing.

We now turn to parental reports of adolescents' TV program preferences. From Table 5.11, presenting parental reports of adolescent TV preferences, it is evident that the social origin variables used here are not especially effective predictors of the parents' beliefs about their adolescents' TV preferences, as can readily be seen from the meagre amount of explained variance ($R^2 = .053$ for the 5th grade and $R^2 = .061$ for the 9th grade). According to the parents, adolescents' preferences seem to be a much more independent, individualistic or personal phenomenon than is the amount of TV viewing. The obvious explanation is that the former is an attitude construct while the latter reflects actual behaviour. However, the weak trends observed from Table 5.11 are in accordance with expectations, the concept family communication dimensions as well as positive TV attitudes being of some explanatory value. Logically, parents stressing concept-orientation experience their adolescents as rather inclined to prefer

Table 3.2 MCA of parents reports on adolescents TV viewing by social class and family socialization. Separately for 5:th and 9:th grade

Variables	5:th grade			9:th grade		
	Grand mean = 20.47			Grand mean = 18.77		
	N	Unadj.	Eta	Adj. for indep.	Beta	
SOCIAL CLASS						
1	54	-5.37		-4.62		
2	87	-2.44		-1.85		-4.96
3	49	-3.16		-2.40		-3.13
4	86	1.35		.89		1.71
5	132	4.09	.35	3.42	.29***	3.02
						.28*
SOCIO ORIENTATION						
1 low	131	-1.43		.26		
2 medium	142	-1.43		-1.43		-1.42
3 high	135	2.89	.20	1.25	.11	.64
						.38
						.08
CONCEPT ORIENTATION						
1 low	155	1.25		.56		-.75
2 medium	123	.22		.42		-1.01
3 high	130	-1.70	.12	-1.06	.07	1.90
						.11
POSITIVE TV ATTITUDES						
1 low	154	-3.35		-2.98		-4.69
2 medium	165	.53		.18		1.34
3 high	89	4.81	.31	4.82	.29***	4.50
						.33***
ADDICTIVE TV ATTITUDES						
1 low	102	-1.53		-2.33		-.63
2 medium	107	-.55		-1.08		-1.31
3 high	199	1.08	.11	1.77	.18***	1.97
						.12
MULTIPLE R SQUARED						
				.233		.203
MULTIPLE R						
				.482		.450

Table 5.10 ONEWAY analysis of parents' reports on adolescents' TV viewing by social class. (Multiple range test: Scheffe procedure at the 0.50 level). 5:th and 9:th grade combined.

MEAN	Social class 1	Social class 3	Social class 2	Social class 4	Social class 5
14.7535	Social class 1				
16.8289	Social class 3				
17.3922	Social class 2				
21.0913	Social class 4	*	*	*	
23.5000	Social class 5	*	*	*	

(*) Denotes pairs of groups significantly different at the .050 level

and family socialization. Separately for 5:th and 9:th grade

Variables	5:th grade			9:th grade		
	Grand mean = 4.91			Grand mean = 4.18		
	N	Unadj.	Eta	Adj. for indep.	Beta	
SOCIAL CLASS						
1	56	.18		.09		
2	87	.01		-.04		.57
3	48	.32		.25		.19
4	87	-.29		-.26		-.39
5	131	-.00	.12	.07	.10	.09
						-.12
					.19	.16
SOCIO ORIENTATION						
1 low	134	.18		.06		.04
2 medium	140	-.09		-.07		.07
3 high	135	-.08	.08	.01	.03	-.09
					.07	.04
CONCEPT ORIENTATION						
1 low	155	-.22		-.17		-.22
2 medium	125	-.02		-.03		.09
3 high	129	.28	.13	.24	.11(*)	.20
						.15
						.12
POSITIVE TV ATTITUDES						
1 low	155	.22		.21		.21
2 medium	164	.03		.03		-.17
3 high	90	-.42	.15	-.42	.15*	-.07
						.12
						.10
ADDICTIVE TV ATTITUDES						
1 low	102	.08		.13		-.11
2 medium	108	-.08		-.04		.09
3 high	199	.00	.04	-.05	.05	.04
					.06	.05
MULTIPLE R SQUARED						
					.053	.061
MULTIPLE R						
					.230	.247

informative TV content, while on the other hand, parents with positive TV attitudes experience their children as seeking fictive or fantasy programs.

All in all, the parents' reports on family TV use, their own, as well as their adolescents, indicate a picture of TV use as a rather coherent form of family behaviour. However, there is a moral aspect to all media consumption and the parents may minimize the children's reported viewing in accordance with socially desirable behaviour. One possibility might be that the parents are in reality reporting the rules for the accepted family viewing time rather than the actual viewing time of the youngest adolescents.

5.4.2 Parental TV Control

Our hypothesis in this section is that middle class parents control their adolescents' TV consumption more strictly than working class parents do.

As far as differences in parental TV control by social class are concerned, research findings are mixed. Early research supported the theory that social class norms are operative in TV control. In England, Himmelweit et al (1958) found that higher and middle class parents claimed to control their children's viewing more than working class parents did. In America, Steiner (1963) and later Bower (1973) reported that higher and middle class parents showed more guilt about their children's TV viewing than working class parents.

Rossiter and Robertson confirmed these findings in their study of parent-child consensus:

"Most notably in the area of general televi-

sion control, there was a fairly consistent tendency for upper class parents to exaggerate their reports, suggesting the operation of a specific social class norm beyond the common pattern of idealized reporting by parents". (Rossiter and Robertson 1975:323)

In our study, we asked both the parents and their adolescents if the parents tried to restrict the adolescents' TV consumption.

Crosstabulating, in Table 5.12, the answers with our 5-point social class scale, we find no great differences in the rate of parental control in general, reported by the different social classes, neither for the adolescents nor their parents. On the other hand, there was some difference, although not statistically significant, in the reports of successful parental TV restrictions.

Twice as many social class 1 parents reported successful TV control over their adolescents (19 %) as social class 5 parents did (9 %). The same trend is also reported by the adolescents themselves. Another interesting finding is that the most heterogeneous social class group, social class 3, seems to be the least restrictive. Both adolescents and parents from this group reported the lowest rate of all attempted and successful parental control.

Research on the question of actual TV program selection is conflicting. Niven (1960) found that in the evening, the majority of the program decisions were made jointly by two or more members of the family. Smith (1961) found, however, that only about one quarter of the evening programs were chosen by two or more of the family members. Our results in this area, not presented in table form, agree with the findings of Niven.

Among both the adolescents and their parents only about one tenth reported program choice by only one family

Table 5.12 Adolescent-parent reports on parental TV restrictions by social class (%). Parents' reports within parentheses

Reported restrictions	Social class				
	1	2	3	4	5
None	80 (58)	74 (58)	90 (72)	87 (64)	87 (67)
Unsuccessful restrictions	15 (24)	22 (27)	10 (21)	10 (22)	11 (24)
Successful restrictions	5 (19)	4 (15)	1 (7)	4 (14)	2 (9)
Total	100 (101)	100 (100)	101 (100)	101 (100)	100 (100)
N	103 (103)	147 (150)	109 (112)	164 (168)	267 (270)

member. Of the adolescents claiming TV program choice by only one family member, one half said that their parents decided, and the other half said they decided themselves. The division is the same with the parents: Half of them claimed that they themselves decided the programs, and the other half claimed that their children did.

An important factor is, of course, the amount of TV ownership. About one third of the families in our sample owned more than one TV set. This, naturally, diminishes the program choice problem within the family.

Concluding, our hypothesis that middle class parents control adolescent TV consumption more strictly than working class parents, has not been supported to any considerable extent. Although all the relationships go in the expected direction, they are weak and not statistically significant.

5.5 Adolescents' 'Extra-family' Relations

The family is certainly the most important socialization agent in shaping adolescents' norms and behaviour. Adolescents however, also socialize each other. As the adolescents grow older parental influences usually (depending of the subject matter) decline, while the influences of peers increase (c f Sigler and Seitz 1978 and Bidde , Bank and Martin 1980). In order to measure the adolescents' experiences outside the family two measures were constructed, one supposed to tap the amount and intensity of adolescents' peer interaction, the other measuring the number of leisure activities engaged in by the adolescents.

The adolescents 'extra-family' relations are, however, not independent of their family environment. In the present section these relationships will be analyzed,

5.5.1 Operationalizations

Peer relations: The amount and intensity of the adolescents' peer relations is measured by an index built on the following eleven questions on diverse interactions with their peers (how many and how often).

Together with my friends I ...

- a) ... play sport
- b) ... play some games
- c) ... talk about something we've seen on TV
- d) ... listen to pop or other kinds of music
- e) ... practice a hobby
- f) ... do homework or schoolwork
- g) ... go to the cinema
- h) ... go to a club or recreation area
- i) ... sit and talk
- j) ... go dancing
- k) ... go to town

The index is constructed by multiplying the number of activities by the intensity (how often).

Leisure activities: The adolescents' leisure activities were measured by indexing three questions on participation in sports, hobbies and clubs/associations, respectively.

5.5.2 Peer Relations, Social Class and Family Socialization

From Table 5.13 it is evident that the adolescents' relations with peers are relatively independent of social class and family influences. Social class, however, shows only moderate effects on peer relations. The relationship is linear only in the case of the 9th graders. Fifteen year old working class adolescents are more engaged in peer relations than their middle class schoolmates. Adolescents from the highest social

Variables	5:th grade				9:th grade			
	Grand mean = 64.32		Adj. for indep.		Grand mean = 67.93		Adj. for indep.	
	N	Unadj.	Eta	Beta	N	Unadj.	Eta	Beta
SOCIAL CLASS								
1	53	-12.33		-10.99	17	-11.73		-11.38
2	80	5.16		6.22	28	-6.47		-5.71
3	41	-6.93		-6.46	26	-.73		1.99
4	82	1.14		.81	38	2.64		3.28
5	121	3.56	.16	2.34	67	4.47	.16	2.64
				.15 (*)				.14
SOCIO ORIENTATION								
1 low	126	-5.53		-4.99	47	-5.12		-4.44
2 medium	133	2.41		2.29	63	1.69		1.15
3 high	118	3.18	.11	2.75	66	2.03	.09	2.06
				.10				.08
CONCEPT ORIENTATION								
1 low	145	1.52		-.51	71	1.18		-.60
2 medium	115	1.09		1.94	47	1.32		.26
3 high	117	-2.96	.05	-1.27	58	-2.51	.05	.53
				.04				.02
POSITIVE TV ATTITUDES								
1 low	146	-2.86		-1.96	65	-.91		.37
2 medium	152	2.09		2.19	66	.28		.30
3 high	79	1.28	.06	-.59	45	.91	.02	-.97
				.05				.02
ADDICTIVE TV ATTITUDES								
1 low	94	.64		1.38	64	6.43		6.20
2 medium	99	.84		.75	54	-1.10		.19
3 high	184	-.78	.02	-1.11	58	-6.06	.16	-7.02
				.03				.16
MULTIPLE R SQUARED				.039				.053
MULTIPLE R				.198				.231

class groups (1 and 2) are especially low on peer relations. The peer group culture is therefore more a phenomenon of working class life style than is the case for adolescents from families high on the social ladder.

5.5.3 Leisure Activities

Not surprisingly, leisure activities show stronger, although not impressive, relationships to social class and family socialization than was the case for peer relations. Leisure activities are presumably more dependent on the family's resources (both economic, social and cultural) than are adolescents' interactions with other adolescents of the same age. (See table 5.14.)

Social class is significantly related to leisure activities for both age groups, moderately so for the younger ones and relatively strongly for the older ones. For both age groups the relationship is linear, indicating middle class adolescents to be participants in leisure activities to a far greater extent than their working class counterparts. Family socialization, on the other hand, does not seem to play significant role here. Neither 5th nor 9th grade adolescents' leisure activities are affected notably by family socialization. Finally, peer relations, while not significantly related to leisure activities in the 9th grade, have a significant, moderately strong relationship with leisure activities in the 5th grade. Adolescents high on peer relations are at the same time high on leisure activities at the age of eleven, while this relationship declines as the adolescents reach middle adolescence.

Table 5.14 MCA of adolescents leisure activities by social class, family socialization and peer relations. Separately for 5:th and 9:th grade

Variables	5:th grade				9:th grade			
	Grand mean = 1.61		Adj. for indep. Beta		Grand mean = 1.40		Adj. for indep. Beta	
	N	Unadj. Eta	Unadj. Eta	Beta	N	Unadj. Eta	Unadj. Eta	Beta
SOCIAL CLASS								
1	53	.27		.27	16	.54		.53
2	80	.15		.11	28	.29		.31
3	40	.12		.14	24	.06		.10
4	82	-.08		-.06	37	-.02		-.08
5	120	-.20		-.20	67	-.26		-.25
			.21	.20			.32	.32
SOCIO ORIENTATION								
1 low	125	.12		.06	46	.11		-.02
2 medium	134	-.07		-.06	60	-.11		-.09
3 high	116	-.05		.01	66	.02		.10
			.10	.06			.11	.10
CONCEPT ORIENTATION								
1 low	145	-.12		-.07	70	-.17		-.08
2 medium	114	.00		-.01	45	.08		.08
3 high	116	.15		.10	57	.14		.04
			.13	.09			.18	.09
POSITIVE TV ATTITUDES								
1 low	144	.09		.05	65	.02		.00
2 medium	151	.05		.06	63	.07		.06
3 high	80	-.24		-.21	44	-.13		-.10
			.15	.13			.09	.08
PEER RELATIONS								
1 low	125	-.18		-.22	47	-.09		-.13
2 medium	131	.07		.06	69	-.00		-.03
3 high	119	.11		.16	56	.08		.14
			.15	.19			.08	.13
MULTIPLE R SQUARED								
				.104				.139
MULTIPLE R								
				.322				.373

6. ADOLESCENTS' TV USE

D Chaney (1972) distinguishes between physical and psychological accessibility to mass media. One of the strongest factors determining adolescent television use is physical accessibility. In the first place, of course, ownership of a TV set is of great importance. Most families own at least one TV set, but today, more and more families are getting a second TV set. Secondly, the time available to the viewer is an important factor. Nowak and Nowak (1975) demonstrate that television viewing highly correlates with leisure time. Thirdly, the amount of TV programs and TV time offered to the viewer affects this amount of viewing. This is one of the main reasons for the difference between the amount of TV viewing in the US and Europe. Beside this overt accessibility, people's needs and interests shape their psychological accessibility to TV viewing.

There are certainly complex mechanisms at work determining adolescents' TV use but some themes of adolescent development are common to most researchers studying adolescent TV use. First we may point to the simple fact that during adolescent years, parental authority gradually gives way to greater freedom. Secondly, and parallelly, the adolescents establish stronger relations to their peers, so that their main interests turn away from the family. Thirdly, partly as a result of the developments described, adolescents reject 'childish activities' and adopt semi-adult values and activities, often outside home activities.

In this chapter we shall examine how differences in cognitive development (i.e. age) together with intra and extra family socialization agents affect different aspects of adolescents' TV use. Beside the amount of time spent viewing TV, the aspects of the adolescents' TV use analyzed in this chapter are the adolescents' TV program preferences and relations to the TV content consumed.

Let us now turn to each of the three aspects of TV use. First the amount of time spent watching TV is examined.

6.1 TV Viewing

The average daily viewing time (weighted) of our sample was 1 hour 50 minutes, compared with 1 hour 32 minutes average daily TV viewing by their parents. This is fairly normal for Swedish conditions. Cecilia von Feilitzen (1976) for instance, reports about 2 hours for adolescents. Compared to American and English figures, the Swedish figures stand out as fairly low. Greenberg (1976) for instance, reports that 12 to 14 years old adolescents in England watch TV for 3.09 hours daily. The main reason for this difference, presumably, is due to the differential TV output in the two countries (physical accessibility; cf above).

A basic question about adolescents' mass media behaviour and cognitive development is: Are there systematic changes in the media behaviour of youth during the years of adolescence, or will the pattern set down in childhood simply continue through adolescence? Research carried out in the US by Lyle & Hoffman (1972), McLeod & Brown (1976), and in Great Britain by Greenberg (1973) shows that television viewing in these countries reaches a peak in early adolescence (around the age of 12), and then decreases substantially in older adolescence, to the point of being the lowest TV viewing of any age group. In Sweden, research showed that in 1971, the heaviest TV viewers were adolescents between the age of 9 and 14 years, with an average weekly viewing total of some 13 hours, compared to 10 hours for the whole audience (Radio och TV möter Publiken, 1972). The adolescents in the Primary School Panel are between 11 and 15 years old, the heaviest viewing period in the adolescents' lives. Table 6.1 shows their TV viewing by grade. The table demonstrates, as expected, a steady decline in TV viewing as the students grow older.

Table 6.1 Adolescent TV viewing by grade (%)

TV viewing	5th grade	9th grade
Low	22	53
Middle	30	31
High	48	16
%	100	100
N	496	215
Gamma: $-.57^{***}$		

6.1.1 TV Viewing, Social Class and Family Socialization

Most researchers have found parental status to be related to the amount of adolescent television viewing, with lower class adolescents as heavier TV viewers than middle class adolescents (Bailyn 1959, Greenberg and Dervin 1970, Himmelweit, and Swift 1976, Lefkowitz et al 1972, McLeod et al 1972, and Comstock et al 1978). Comstock et al (1978) agree with Lyle and Hoffman (1972) that social class does not predict adolescent TV viewing as strongly now as it did when Schramm and his colleagues (1961) carried out their work, but they doubt strongly that, although the relationship has probably become weaker, it no longer exists. Comstock et al also think that there are indications that age may modify the predictive power of social class, but as they point out, data on this are highly tentative, since few studies have compared age and social class. For instance, Lyle and Hoffman (1972) found no difference in TV viewing by sixth-graders from middle and working class homes, but found differences in tenth-graders' TV viewing, with working class adolescents viewing more than middle class adolescents. Similarly, in their study on the mass media use of the urban poor, Greenberg and Dervin (1970), although using different class definitions for the two age levels in question, found indications that social class differences in total TV viewing are greater among adolescents than among children. This increase in social class differences as the adolescents grow older is, of course, caused by many factors working together. Here, we shall only mention two important factors. First, the middle class adolescents' media use becomes more diversified as they grow older, and secondly, the opportunities for leisure activities become greater for middle class adolescents than for working class adolescents as they grow older.

Discussing the reason why children and adolescents from different subcultures watch TV differently, Comstock

et al state:

"Many of the variables that locate differences in amount of viewing do so because they affect the time each young person perceives to be available to spend with television. That is older children, brighter children, children from middle class families may all perceive - and probably have - more activities to which to devote time. Hence they view less ... Given televisions' accessibility to even the very young, viewing can be conceptualized as a 'baseline' activity in which most young children who by virtue of their age have a limited number of alternatives regardless of various individual or social differences, can and do engage. As they grow older, however, the range of alternatives increases... Time spent viewing then decreases but it decreases differently as a result of such factors as mental ability or social class for the simple reason that these variables also locate differences in the actual availability to alternatives, in the likelihood of perceiving alternatives, and in factors which locate the attractiveness or necessity of these alternatives ... As a result, we are not surprised that some social and individual variables fail to locate significant differences in amount of viewing until the later years of childhood, for it is only then that many variables such as mental ability, parental income, or residence in a ghetto, will affect alternatives. A child must be old enough to go to summer camp before the economic status of his parents is able to provide this alternative to television". (Comstock et al 1978:188)

Drawing from the preceding discussion on empirical and theoretical results, it seems quite logical to venture the hypothesis that working class adolescents are heavier TV viewers than middle class adolescents, and that this difference will increase with older age.

Social class: Table 6.2 indicates that there is a significant, moderately strong relationship between the adolescents' amount of TV viewing and the social position of their parents. This holds true for both 5th and 9th grade adolescents. The strength of the relationship does not, however, increase, as the adoles-

cents grow older, so the hypothesis that social class differences will increase significantly with older adolescents, is not supported. On the other hand, however, the 5th grade adolescents' viewing already shows such a significantly strong relationship that it is plausible to speculate that the predicted differentiation by social class has already taken place at that age level, around 11 to 12 years. Already at that age, children from different social classes have acquired actual differences in availability to other alternatives, such as organized leisure activities, which are competing with their amount of TV viewing. Of course, the opposite could also be true. The increased differentiation has yet to take place for the older 9th grade adolescents. This explanation, however, is not as likely as the former. This is because of the relative strength of the relationships shown both by 5th and 9th grade adolescents.

Family socialization: Examining the family context of the adolescents' TV viewing, some important theoretical implications are revealed. Turning first to the family communication patterns, the unadjusted results for the socio and concept orientations are moderately strong and in accordance with theory (Chaffee et al 1971), low concept and high socio family orientation in the family leads to heavy TV viewing by the adolescents. However, as was the case with the parents' own use, these influences are minimized when adjusted for the effects of social class and TV attitudes. On the other hand, Brown's scales measuring parental attitudes to TV and adolescents' TV use are a much more powerful independent predictor of adolescents' TV viewing. Both 5th and 9th grade adolescents from families positive to TV use are heavier TV viewers than those from families more negative to TV use in general. The relationship, however, is stronger in the 5th grade, indicating decreased family socialization influences as the adolescents grow older. The same is true for the addic-

Table 6.2 MCA of adolescents' TV viewing by social class and family socialization.
Separately for 5:th and 9:th grade

5:th grade		9:th grade			
Grand mean = 31.10		Grand mean = 20.26			
Variables	N	Unadj.	Eta	Adj. for indep.	Beta
SOCIAL CLASS					
1	56	-6.95		-6.37	
2	88	-2.74		-2.24	
3	48	-1.43		-1.65	
4	86	4.33		4.28	
5	126	2.60		1.99	
			.27		.24
SOCIO ORIENTATION					
1 low	131	-2.81		-1.12	
2 medium	143	.47		.62	
3 high	130	2.32		.45	
			.15		.06
CONCEPT ORIENTATION					
1 low	155	1.09		-.08	
2 medium	120	-1.27		-.83	
3 high	129	-.12		.87	
			.07		.05
POSITIVE TV ATTITUDES					
1 low	152	-4.21		-3.88	
2 medium	162	1.63		1.51	
3 high	90	4.18		3.82	
			.24		.22
ADDICTIVE TV ATTITUDES					
1 low	102	-1.92		-3.03	
2 medium	105	-.02		-.13	
3 high	197	1.00		1.64	
			.08		.13
MULTIPLE R SQUARED					
					.138
MULTIPLE R					
					.372

tive attitude. Here, however, the relationship is of a relatively meagre magnitude.

6.1.2 Adolescents' TV Viewing and 'Extra Family' Socialization

Beside the family, the most obvious socialization agent for adolescents' media use is the peer group. As discussed in chapter 5 the adolescents' involvement in the peer group is measured in two ways. On one hand, the adolescent's amount of interaction or relation with peers was measured, on the other hand, the number of leisure activities engaged in was registered. The two dimensions of 'extra family' activities are seen here as a potential competing socialization agent to the family influences. Table 6.3 examines the effects of peer relations and leisure activities on adolescents' TV viewing, using social class as a factor variable and the family socialization variables as covariates (see section 1.2 for explanation of factor variables and covariates). The 'extra family' variables are not strong predictors of adolescents' TV viewing. There are some effects, however. Peer relations exert significant effects (although relatively weak when adjusted for social class and family socialization), on the eleven year old adolescents' TV viewing. Contrary to expectations, adolescents engaged in many relations with peers are heavier TV viewers than those with few peer relations. For the eleven year old adolescents, TV viewing seems not to be a substitute for a lack of social activities. On the contrary, adolescents with rich peer relations also find ample time for watching TV. The different activities of TV viewing and peer relations, however, do not seem to be mutually exclusive. Bear in mind, though, that these effects are weak indeed after controlling for the family effects. On the other hand, table 6.3 presents some indications that participation in leisure activities and TV viewing are, at least to some degree, mutually exclusive. A nonsignificant and

Table 6.3 MCA of adolescent TV viewing by 'extra family' relations and social class with family socialization. Separately for 5:th and 9:th grade

5:th grade Grand mean = 30.64				9:th grade Grand mean = 20.35			
Variables	N	Unadj.	Eta	Adj.for indep.	Beta	Adj.for indep. +covar.	Beta
PEER RELATIONS							
1 low	122	-2.95		-2.90		-2.40	
2 medium	121	.16		.36		-.08	
3 high	113	3.01	.17	2.75	.16	2.68	.14**
LEISURE ACTIVITIES							
1 low	114	2.18		2.10		1.74	
2 medium	102	.14		-.44		-.25	
3 high	140	-1.88	.12	-1.39	.10	-1.23	.09
SOCIAL CLASS							
1	51	-7.37		-6.03		-5.68	
2	75	-2.92		-3.08		-2.71	
3	40	-1.71		-1.14		-.66	
4	78	5.05		4.97		4.60	
5	112	2.40	.29	1.75	.26	1.44	***
MULTIPLE R SQUARED							
				.115		.169	
MULTIPLE R							
				.339		.411	

weak relationship indicates that heavy engagement in leisure activities lessens the time spent watching TV. All these results hold true only for the younger adolescents. For the older adolescents there are no significant or systematic relationships between the 'extra family' socialization variables and TV viewing. In contradiction to much theorizing about TV viewing peer involvement does in fact become a less influential predictor of the time spent watching TV as the adolescents grow older.

In the preceding analysis, where the effects of social class on adolescent TV viewing were examined, we adjusted for the family socialization variables. In table 6.3 these effects are also adjusted for the 'extra family' variables. The results from this more extensive controlling procedure is of theoretical importance. The effects of social class are here more stable for the older adolescents than for the younger ones. As we control for both 'intra' and 'extra' family socialization variables the relationship between social class and TV viewing is weakened for the eleven year old adolescents while it is actually unchanged for the fifteen year adolescents. The net result is that the social class effects are somewhat stronger for the older adolescents than the younger ones. These results are in support of the initial hypothesis that the family's social class is a more independent factor in the lives of fifteen year old adolescents, because of more autonomy, than is the case for eleven year old adolescents. Following this reasoning, the differences between the older and younger adolescents should increase still further as more relevant variables are controlled for. When we address this question more thoroughly in the chapter on structured equation models (chapter 8), this will actually be found to be the case.

6.2 TV Relations

TV consumption can be of many different kinds, take place under different circumstances, and involve different relations to the content consumed. Rosengren and Windahl (1972), drawing on the pioneering work of Horton and Wohl (1956), developed a typology of TV relations building on the concept of interaction and identification. The TV audience is seen as having different degrees of interaction and identification with the TV content consumed. The two dimensions of interaction and identification may be combined, and we then get four types of relations, as in Figure 6.1 (cf Rosengren & Windahl 1972). TV relations, then, may be seen as consisting of four possible viewer relations to the TV content consumed.

		Interaction	
		Yes	No
Identification	Yes	Capture	Solitary Identification
	No	Parasocial Interaction	Detachment

Figure 6.1 A typology of Viewer Relations to TV Content (From Rosengren & Windahl 1972)

The strongest combination in the typology, i.e. those having both interaction and identification with the TV personal, has been labelled capture. (The individual becomes one with the content consumed and loses his or her identity during the viewing act.) However, the relation with the TV content consumed could extend beyond the practical time of the viewing act. Rosengren et al (1976) maintain that as a lasting result of the capture process when watching TV, a more permanent relation with the world of television could come about.

This phenomenon has been labelled long-term identification. As the concepts of capture and long-term identification are different aspects of the same phenomenon, we have in this study combined the two to yield a more general measure of the adolescents' relations to TV and its content. In the literature, strong relations with the TV content consumed have been demonstrated to be a functional alternative to real social relationships (Rosengren and Windahl 1972).

However, Rosengren et al (1976) found that while this is the case for adults the same is not true for adolescents. The central question to be answered then, is the following: If adolescents engaged in some kind of relations with the TV content consumed are not seeking functional alternatives to actual human interaction, what are the reasons behind their relations with the TV content they consume? Rosengren et al (1976) found some tentative clues indicating that for adolescents, family interaction is of some importance in this connection, with less family interaction leading to more intensive TV relations. To throw further light on these delicate processes Rosengren et al (1976) called for more sophisticated measures of family orientation and integration. The whole family atmosphere must be studied, they argued. These demands have been met by incorporating both Chaffee's family communication patterns and Brown's parental relations to TV and adolescents' TV viewing, as well as various measures of 'extra family' activities (see Chapter 5). Following is an analysis of the TV relations and these 'intra' and 'extra' family variables, as well as social class.

6.2.1 Operationalizations

The questions measuring the capture dimension follows:

- a) When I watch a TV program that I like I sometimes wish that I was in the story

- b) When I see some TV programs I almost feel that I am in the action
- c) When I see some TV programs I almost feel that I am one of those involved
- d) Sometimes when I see a TV program that is very exciting I think that I really am one of the people involved.

The questions tapping long-term identification were:

- a) Often when I have seen a TV program I think about it for a long time afterwards
- b) Even long after I have seen a TV program I can imagine how it would be to be one of the persons in the action
- c) I would really like to be like the people in some TV programs

The reliability for the general combined TV relations scale measured with the Alpha-coefficient was quite acceptable: Alpha, TV relations: 0.77.

6.2.2 TV Relations, Social Class, 'Intra' and 'Extra' Family Socialization

In table 6.4 the effects of social class and family socialization on TV relations are examined. The overall implication from Table 6.4 is that of relative independence of the TV relations from social class and family socialization. While the amount of explained variance is somewhat higher for the eleven year old adolescents than for the fifteen year ones, indicating that family socialization is stronger at that age, the results are meagre indeed ($R^2 = .053$ and $.032$ respectively). For the younger age sample, the strongest relationship is between the socio-orientation and TV relations. Not surprisingly, adolescents from families

Variables	5:th grade Grand mean = 2.58			9:th grade Grand mean = 1.42		
	N	Unadj.	Eta	Adj. for indep.	Beta	
SOCIAL CLASS						
1	56	-.47		-.39		
2	88	-.16		-.09		.09
3	46	-.14		-.08		.08
4	86	.16		.11		.04
5	127	.26	.12	.19		.19
					.09	-.17
						.10
SOCIO ORIENTATION						
1 low	132	-.46		-.38		
2 medium	140	.03		.03		-.25
3 high	131	.44	.17	.35		.07
					.14 *	.12
						.10
CONCEPT ORIENTATION						
1 low	156	.24		.12		
2 medium	119	.00		.03		.15
3 high	128	-.29	.10	-.17		-.10
					.06	-.11
						.08
POSITIVE TV ATTITUDES						
1 low	153	-.10		-.00		
2 medium	163	.13		.11		.15
3 high	87	-.07	.05	-.20		-.17
					.05	.01
						.09
ADDICTIVE TV ATTITUDES						
1 low	101	-.32		-.24		
2 medium	104	.31		.30		.02
3 high	198	-.00	.11	-.04		-.04
					.09	.01
						.02
MULTIPLE R SQUARED						
					.053	.032
MULTIPLE R						
					.230	.178

striving to maintain a harmonious and affective family climate are more inclined to participate in some kind of relations with the TV content consumed than are adolescents from families low on socio-orientation. At the same time, although the relationship is not statistically significant, adolescents from middle class families are low in the TV relations.

All in all, the emphasis on affective social relations, located predominantly in working class and socio-oriented families, seems to be the family characteristic most relevant to adolescent TV relations.

On the other hand, the more autonomous atmosphere of middle class as well as concept-oriented families constrains the adolescents' dispositions to be engaged in relations with the TV content they watch. Finally, the parents' TV attitudes show no clear pattern of effects on the adolescents' TV relations.

As we have already noted, however, the main results from table 6.4 are those of 'nonfindings' when analyzing social class and family socialization effects upon adolescents' TV relation. Obviously, the main explanatory indicators of adolescents' TV relations lie somewhere else. In table 6.5, we examine if the adolescents' peer related measurements are better predictors of their TV relations than the family dimension turned out to be. In table 6.5, social class is analyzed as a factor variable alongside peer relations and leisure activities, while the family socialization variables are covariates. The results in table 6.5 indicate an important difference according to the cognitive developmental stage of the adolescents. For adolescents still at the concrete operational stage, peer relations are demonstrated to be one of the mechanisms behind the adolescents' TV relations, withstanding controls for social class and family socialization. For adolescents that have reached the formal operational stage, peer relations do not add any substantial explanatory power

Table 6.3

MCA of adolescents' TV relations by 'extra family' relations and social class with family socialization. Separately for 5:th and 9:th grade

Variablies	5:th grade				9:th grade			
	Grand mean = 2.51				Grand mean = 1.41			
	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. Beta + covar.	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. Beta + covar. Beta
PEER RELATIONS								
1 low	122	-.52	-.46	-.44	43	-.16	-.16	-.16
2 medium	121	-.26	-.26	-.29	59	.11	.08	.08
3 high	113	.85	.78	.79	53	.01	.04	.04
		.28	.26	.26		.08	.07	.07
LEISURE ACTIVITIES								
1 low	114	-.27	-.20	-.23	57	-.21	-.22	-.22
2 medium	102	-.05	-.11	-.10	58	.28	.30	.30
3 high	140	.25	.25	.26	40	-.11	-.13	-.12
		.11	.10	.10		.16	.17	.16
SOCIAL CLASS								
1	51	-.45	-.33	-.28	13	-.18	-.16	-.17
2	75	-.12	-.17	-.14	26	.06	-.03	-.03
3	40	-.26	-.18	-.08	21	-.08	-.04	-.04
4	78	.15	.18	.13	33	.19	.22	.23
5	112	.27	.21	.16	62	-.06	-.06	-.06
		.13	.10	.08		.08	.08	.09
MULTIPLE R SQUARED			.096	.120		.037		.038
MULTIPLE R			.309	.346		.193		.195

to the TV relations, these are still 'non-explained' ($R^2 = .038$). Contrary to expectations, in the case of the younger adolescents, those who are most integrated into the peer group are also those who identify most easily with the world of television and its personae. The conclusion to be drawn from these results is, obviously, that if children at this point in their cognitive development have satisfying personal relationships outside their family, they are also engaged to a higher degree in the pseudo relations obtained through the TV screen. These results are to some extent in line with some results on this subject matter (Noble 1975, Rosengren et al 1976, Sonesson 1979), but in conflict with most former established research results (Himmelweit et al 1958, Schramm et al 1961).

6.2.3 Conclusions

When we draw together the results on adolescents' TV relations and diverse social characteristics, a rather clear pattern of social influences reveals itself.

The adolescent's stage of cognitive development is of central importance here. For family and peer relations to be operative in explaining TV relations, the adolescents must still be at the concrete operational stage. For adolescents at the concrete stage, the most important determinant of interaction with the world of television is the ability or opportunity to be engaged in affective personal relationships within and outside the family. The explanation of the mechanisms behind TV relations, for the younger adolescents is, therefore, not so much to be found in functional alternatives to real life relations, as has been theorized and empirically established for adults (Rosengren and Windahl 1972, 1977). Rather than being a substitute, TV relations, on the contrary, seem to function more as a complement to already existing social relations for

children at the concrete developmental stage. At this developmental stage, fantasy and reality have still not become such distinct dimensions that there are notable problems for the child in moving between these two worlds with relative ease, taking the relations of each world to the other. At the formal developmental stage all this has changed. Now there is an intellectual barrier between these two worlds, creating an obstacle for the free flow between fantasy and reality. At the same time, TV relations have not yet become functional alternatives as with adults. In middle adolescence TV relations are, to a fair degree, an independent construct of the individual. A systematic exploration using more psychologically oriented determinants than are used within the more sociological frame of this present study could presumably be helpful in explaining the processes behind the TV relations from early adolescence to adulthood. Here, factors such as emotional status, suggested by Sonesson (1979) and introversion versus extraversion suggested by Rosengren and Windahl (1977) could be of importance.

6.3 TV Program Preferences

Although adolescents' television viewing takes up a considerable amount of their spare time, they do not watch the television programs as they come. Mass media research (and probably most parents) have established that adolescents choose predominantly to watch entertainment programs, such as crime dramas and films (Dominic and Greenberg 1972, Lyle and Hoffman 1972, Schramm et al 1961, Comstock et al 1978).

Referring to Freud's Pleasure and Reality Principles, W Schramm and his associates redefined and developed the conceptions of fantasy and reality oriented contents (W Schramm et al 1961). Schramm and his associates maintain that there are two main strands of mass communica-

tion content labelled by them with the terms Fantasy and Reality:

"In general, westerns, crime dramas, popular music and shows belong chiefly with fantasy, whereas news, documentaries, interviews, public affairs programs and educational television are chiefly in the domain of reality material". (W Schramm et al 1961:64)

6.3.1 Social Class, Family Socialization and TV Program Preferences

Earlier research has shown social class to be related to adolescent program selection. (Fletcher 1969, Greeberg and Dervin 1970, Lyle and Hoffman 1972, Comstock et al 1978.) But the results are by no means clear, and as Comstock et al state:

"It is a brave analyst who would reject the proposition that differences related to these variables are not far clearer than the interpretation that could be applied to such differences. The precise factor that lies behind the differing preferences for specific programs is seldom apparent and typically defies capture". (Comstock et al 1978:186)

In their work 'The Growth of Logical Thinking from Childhood to Adolescence', Piaget and Inheeder (1958) maintain that at the age of 11 to 12, the child enters a formal operation stage in his or her thinking processes, thereby moving into adolescence. They state that the adolescent, like the child, lives in the present, but is also able to live in the future and think hypothetically. Noble (1975) uses this developmental model to analyze the relationship between adolescent program preferences and social class. He maintains that the middle class adolescent, when entering the formal operations stage, becomes much more concerned with his future and self-betterment than the working class adolescent. Therefore, middle class adolescents can be expected to reject to a much higher degree the fantasy

programs, so popular with younger children, than the working class adolescents can be expected to do. Instead, the middle class adolescents can be expected to turn to a future career. As early as 1961, Schramm et al reported:

"We are now in a better position to explain what happens at the 'turning point', the time near the beginning of the teens, when adult patterns begin to replace childish ones and spectacular changes in media behaviour occur. In the case of lower socio-economic levels, less change is necessary to go from childhood to adult patterns. But in the case of middle class children, the norms of self-betterment, activity and future time orientation becomes demanding. If their mental ability is equal to the ambitions encouraged by the norms, they tend to high print, low TV behaviour; if not, towards high use of the media generally, the turning point would also seem to be related to the child's ability in formal operations to use logical and abstract thought". (Schramm et al 1961)

From the theoretical implication presented here, and also in the chapter on social class and socialization (Chapter 3), we should now be rather confident in putting forward the hypothesis that middle class adolescents reject fantasy programs in favour of reality programs. On the contrary, working class adolescents, being less concerned with presentation of self-betterment, are more likely to seek immediate reward in the excitement of fantasy programs. As with the time spent on TV, it is likely that this social class difference will increase as the adolescents grow older.

The relationships between the adolescents' program preferences and their social class and family socialization are presented in table 6.6. The table confirms the hypothesized relations between social class age and adolescents' TV preferences. The effects of social class become stronger and more independent (i.e. better withstanding controls) as the adolescents grow older, the relationship being moderately strong for the 9th grade

Table 6.6 MCA of adolescents' TV program preferences by social class and family socializations. 5:th and 9:th grade separately

Variables	5:th grade				9:th grade			
	Grand mean = 3.97				Grand mean = 3.94			
	N	Unadj.	Eta	Adj. for indep. Beta	N	Unadj.	Eta	Adj. for indep. Beta
SOCIAL CLASS								
1	53	.29		.21	15	.79		.67
2	86	.33		.29	30	.39		.38
3	47	.09		.01	24	.39		.46
4	81	-.25		-.19	39	-.25		-.25
5	122	-.23	.18	-.18	72	-.32	.28	-.32
								.22(*)
SOCIO ORIENTATION								
1 low	130	.03		-.09	48	.10		-.19
2 medium	135	.21		.22	62	.02		.02
3 high	124	-.26	.13	-.15	70	-.09	.04	.11
								.07
CONCEPT ORIENTATION								
1 low	148	-.29		-.27	73	-.20		-.10
2 medium	115	.10		.09	49	-.11		-.13
3 high	126	.25	.16	.23	58	.35	.14	.24
								.10
POSITIVE TV ATTITUDES								
1 low	148	.09		.03	70	.26		.29
2 medium	156	.05		.08	63	-.34		-.36
3 high	85	-.25	.09	-.21	47	.08	.15	.04
								.16(*)
ADDICTIVE TV ATTITUDES								
1 low	98	-.02		.04	65	.07		.18
2 medium	102	.01		.07	56	.20		.12
3 high	189	.00	.01	-.05	59	-.27	.11	-.31
								.13
MULTIPLE R SQUARED								
				.068				.100
MULTIPLE R								
				.260				.316

adolescents. For both age groups the relationship is linear, middle class adolescents' reality preferences are above the grand mean, while adolescents from the two working class groups are under the grand mean in preferring informative programs.

With reference to the developmental issue, there are some indications of stronger family socialization effects for the younger adolescents. This is mostly due to the concept-orientation, which is significantly, although not very strongly, related to TV preferences of the eleven years old. At the concrete operational stage, the parents' concept-orientation encourages the childrens' preferences for informative or reality orientated TV content. The same is true for the formal operational adolescents, although here the relationship does not stand up to controls for social class and TV attitudes.

6.3.2 Extra-family Relations and Adolescents' TV Program Preferences

In table 6.7 the adolescents' 'extra-family' variables are introduced, analyzing the family socialization variables as covariates. Neither peer relations nor leisure activities are found to exert significant influences on the adolescents' TV preferences. This holds true for both age levels.

6.4 Alternative Learning Mechanisms

So far, the analysis of adolescents' TV use has centered around the anticipated effects of social interaction within and outside the family, as well as social class. These have been seen as one type of mechanisms behind differences in adolescents' TV behaviour. Here the learning processes have as their source the norms and values acquired in interaction with relevant others.

Table 6.7 MCA of adolescents' TV program preferences by 'extra family' relations and social class with family socialization. Separately for 5:th and 9:th grade

Variables	5:th grade				9:th grade			
	Grand mean = 3.97				Grand mean = 3.92			
	N	Unadj. Eta	Adj.for indep. Beta	Adj.for indep. Beta +covar. Beta	N	Unadj. Eta	Adj.for indep. Beta	Adj.for indep. Beta +covar. Beta
PEER RELATIONS								
1 low	122	.19	.20	.19	43	.15	.06	.10
2 medium	121	-.09	-.11	-.09	59	-.16	-.12	-.11
3 high	113	-.11	-.10	-.11	53	.06	.08	.03
		.09	.10	.09		.07	.05	.05
LEISURE ACTIVITIES								
1 low	114	-.23	-.21	-.18	57	-.13	-.04	-.02
2 medium	102	.10	.13	.12	58	-.06	-.09	-.10
3 high	140	.11	.08	.06	40	.28	.19	.17
		.11	.10	.08		.10	.06	.06
SOCIAL CLASS								
1	51	.41	.33	.26	13	.77	.70	.57
2	75	.29	.30	.28	26	.35	.37	.29
3	40	.16	.11	.02	21	.46	.43	.41
4	78	-.25	-.25	-.21	33	-.26	-.27	-.18
5	112	-.26	-.22	-.17	62	-.33	-.30	-.28
		.19	.17	.15		.23	.22	.18
MULTIPLE R SQUARED			.052	.082			.058	.076
MULTIPLE R			.229	.287			.240	.276

These interpersonal relations have been demonstrated to be structurally dissimilar, according to social status and cognitive development, creating different learning situations for the adolescents engaged in the use of television. The term 'learning mechanism' advocated by McLeod and Brown (1976) is used here to describe the different underlying processes. In the literature, beside social interaction, the types of learning processes most often discussed in connection with children and adolescents' TV use are those of modelling, i.e. imitative modelling seen as a direct effect, and reinforcement, i.e. direct parental control and rules on media use, in other words, the reward and punishment principle (see Schramm et al 1961, Himmelweit et al 1958, Chaffee et al 1971, McLeod and Brown 1976). The different dimensions underlying the learning mechanisms are, of course, to some degree related to each other, as both viewing together with parents and parental TV rules are part of the adolescents' interpersonal experience.

In the remaining part of this chapter, the possible effects of the modelling and reinforcement mechanisms on adolescent TV use will be analyzed and related to the interactional variables (family and peers) and social class.

The simplest mechanism of learning is the exemplar: the adolescents learn by imitation the behaviour of other family members, as well as that of peers and other socialization agents. In early mass communication studies, simple correlations between the media behaviour of parents and children were used to demonstrate modelling (Himmelweit et al 1958 and Schramm et al 1961). The problem encountered here, of course, is the question of causality. Two obvious pitfalls are at hand when comparison of behaviour is assumed to reveal ongoing processes. First, a variation in a third, intervening or background variable may account for the relationship. For modelling, the social interaction di-

mension is of special interest. How much of the modelling process is a consequence of variations in the relationship between adolescents' social interaction and TV use (in which case the supposed modelling becomes more conjoint watching than genuine modelling). Another factor that could be expected to strongly modify the modelling effects is the common social class of the adolescents' parents.

In this chapter, by systematic statistical controls of the type used in the preceding chapters, we hope to be able to address these kind of questions. How effective are the different learning mechanisms of modelling and social interaction at different cognitive stages and in different social class setting? Second, and more problematic, is the question of causal directionality. McLeod and Brown (1976) and earlier Chaffee et al (1971) have addressed the problem of reverse modelling. The adolescents' television use could as likely influence the parents TV behaviour as vice versa. Reverse modelling becomes increasingly likely as the adolescents grow older. This is a dilemma that is extremely difficult to solve in survey research. McLeod and Brown (1976) going through the literature have only found indirect evidence bearing on this problem. Most of the studies on this subject indicate that the strength of the influences is much the same in both directions. Still another threat to the modelling reasoning is that of opportunity. The amount of TV sets and TV content broadcast can severely restrict the choice of the individual.

All these potential alternative explanations make it important to interpret the modelling effects obtained conservatively. The strength of the relations must be convincing if we are to have faith in the modelling hypothesis. Unfortunately, because of sample size, it is impossible to break down the material by age and social class at the same time. When breaking down by social class, we have, therefore, to combine the 5th and 9th

grade adolescents. Hence, the developmental differences between the two age levels that have persistently been found to exist, are obscured. Some analyses carried out, not presented here, indicate that the effects of social class and age reinforce each other when analyzed together.

The following analyses are carried out in two steps. First, in tables 6.8, 6.9 and 6.10 the effects of the parents' own TV viewing and program preferences on adolescents' TV use is examined by age, controlling for the socialization variables and social class. Second, in tables 6.11, 6.12 and 6.13 these same relationships are analyzed separately for the middle and working class families.

6.4.1 Cognitive Development and Modelling

TV viewing: Analyzing the cognitive developmental dimension (i.e. age), we turn first to TV viewing. Table 6.8 indicates that the unadjusted relationship between the parents' and their adolescents' TV viewing is rather strong for both the 5th and 9th grade level. The socialization and social class variables, when adjusted for, account for a sizable portion of the relationship for the 5th grade adolescents while not having much effect in the case of 9th grade adolescents. Direct modelling seems, therefore, to be a more independent phenomenon for fifteen year old adolescents, who presumably view TV in much the same manner as their parents. For the younger adolescents, the modelling effects are significantly weakened by the intervening forces of the adolescents' social interaction with family and peers. The interactional socialization effects diminish when the adolescents move to the cognitive stage of formal operations, becoming more mature members of the family.

The parents' program preferences are, as could be expected, not a very strong indicator of adolescents' TV viewing. Although there are weak to moderately strong linear relations for both the 5th and 9th grade levels, indicating adolescents with parents preferring informative TV content to be light TV viewers, these relationships do not stand up to controls for socialization and social class.

TV program preferences: As the TV program preferences, measuring the inclination to prefer informative or fictive TV content, are not a behaviour measurement, but an attitude dimension, direct modelling from the time parents spend viewing TV is fairly unlikely. On the other hand, the adolescents could be expected to copy to some extent the attitudes directing the program choices of their parents. Table 6.9 examines these aspects of the adolescents' TV use. From the table it is evident, as expected, that the parents' TV viewing does not influence the adolescents' TV preference significantly, while on the other hand, parental program preferences play some role in shaping the preferences of the younger adolescents. There is a moderately strong relationship between the parents' and 5th grade adolescents' TV preferences. Adolescents with parents preferring informative programs are inclined to prefer the same types and adolescents with parents preferring a more fictive type of programs prefer those programs more often than informative ones. This relationship, although to some extent dependent on social interaction and social class, is still significant after adjusting for these dimensions.

It is illuminating to compare the modelling effects on TV viewing and TV preferences along the developmental dimension. For the formal operational stage, the modelling effects obtained concern direct behaviour, i e, the act of watching TV, while for the concrete stage, it is the more subtle attitudinal dimension of preferences that is affected. These trends seem to indicate

Variables	5:th grade				9:th grade			
	Grand mean = 30.69				Grand mean = 20.06			
	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. +covar. Beta	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. +covar. Beta
PARENTAL VIEWING								
1 low	107	-6.06	-4.93	-4.29	58	-3.83	-3.14	-3.27
2 medium	121	-.98	-1.01	-1.01	49	-1.71	-1.58	-1.97
3 high	115	6.67	5.65	5.05	51	6.00	5.09	5.62
		.36		.27			.32	***
								.35
PARENTAL TV PREFERENCES								
1 low	85	3.18	.26	-.00	32	3.91	2.48	2.15
2 medium	128	1.05	1.53	1.60	72	-.62	-.60	-.63
3 high	130	-3.11	-1.68	-1.57	54	-1.48	-.66	-.43
		.18		.10			.11	.10
PEER RELATIONS								
1 low	117	-2.63	-2.40	-2.15	43	1.54	1.21	.33
2 medium	117	-.37	-.41	-.60	62	-1.80	-1.16	-1.16
3 high	109	3.22	3.02	2.95	53	.86	.38	1.09
		.17		.15			.09	.09
LEISURE ACTIVITIES								
1 low	110	1.99	1.39	1.19	58	-.05	-.96	-.94
2 medium	99	.29	-.12	.08	59	1.19	.74	.77
3 high	134	-1.85	-1.06	-1.04	41	-1.64	.30	.23
		.11		.07			.10	.07
SOCIAL CLASS								
1	49	-7.29	-3.96	-4.47	15	-3.81	-2.59	-2.32
2	72	-2.73	-1.93	-1.99	26	-3.30	-3.06	-2.55
3	39	-2.15	-.02	.10	22	-2.68	-2.00	-2.14
4	75	5.12	3.88	3.90	34	.31	-.28	-1.09
5	108	2.35	.40	.61	61	3.14	2.82	3.03
		.29		.19			.21	.22
MULTIPLE R SQUARED								
		.205		.236			.203	.252
MULTIPLE R								
		.453		.486			.451	.502

Table 6.9 MCA of adolescents' TV program preferences by parental TV viewing and preferences, 'extra family' relations and social class with family socialization. Separately for 5:th and 9:th grade

Variables	5:th grade			9:th grade		
	N	Unadj. Eta	Adj. for indep. Beta	N	Unadj. Eta	Adj. for indep. Beta
Grand mean = 3.98						
PARENTAL TV VIEWING						
1 low	107	.26	.09	56	-.10	-.24
2 medium	121	-.05	-.04	46	.23	.27
3 high	115	-.19	-.04	51	-.10	.03
		.12	.04		.09	.12
						.11
PARENTAL TV PREFERENCES						
1 low	85	-.52	-.42	32	-.02	.05
2 medium	128	.00	-.00	71	-.15	-.19
3 high	130	.34	.28	50	.22	.23
		.22	.18		.09	.11
						.10
PEER RELATIONS						
1 low	117	.16	.17	43	.15	.07
2 medium	117	-.05	-.06	58	-.16	-.11
3 high	109	-.11	-.11	52	.06	.06
		.08	.08		.08	.05
						.05
LEISURE ACTIVITIES						
1 low	110	-.23	-.19	56	-.14	-.02
2 medium	99	.10	.14	58	-.06	-.12
3 high	134	.11	.05	39	.28	.21
		.11	.09		.10	.05
						.05
SOCIAL CLASS						
1	49	.35	.14	13	.77	.74
2	72	.30	.26	26	.35	.43
3	39	.18	.06	21	.46	.46
4	75	-.26	-.19	33	-.25	-.34
5	108	-.25	-.13	60	-.34	-.32
		.18	.12		.23	.24
						.21
Grand mean = 3.92						
MULTIPLE R SQUARED			.083			.080
MULTIPLE R			.106			.096

Variables	5:th grade				9:th grade			
	Grand mean = 2.52				Grand mean = 1.41			
	N	Unadj. Eta	Adj.for indep. Beta	Adj.for indep. Beta +covar. Beta	N	Unadj. Eta	Adj.for indep. Beta	Adj.for indep. Beta +covar. Beta
PARENTAL TV VIEWING								
1 low	107	-.18	-.13	-.07	56	.00	.05	.06
2 medium	121	-.12	-.10	-.10	46	.05	.03	.04
3 high	115	.29	.22	.17	51	-.04	-.08	-.10
		.10	.08	.06		.03	.04	.05
PARENTAL TV PREFERENCES								
1 low	85	.11	-.00	-.03	32	-.10	-.12	-.14
2 medium	128	.26	.31	.31	71	.07	.11	.11
3 high	130	-.33	-.31	-.28	50	-.04	-.08	-.07
		.13	.13	.12		.05	.07	.08
PEER RELATIONS								
1 low	117	-.54	-.47	-.47	43	-.17	-.14	-.14
2 medium	117	-.25	-.26	-.27	58	.11	.07	.07
3 high	109	.85	.78	.79	52	.01	.04	.04
		.28	.26	.26***		.08	.06	.06
LEISURE ACTIVITIES								
1 low	110	-.23	-.21	-.22	56	-.21	-.22	-.23
2 medium	99	-.09	-.11	-.10	58	.28	.33	.32
3 high	134	.26	.25	.25	39	-.11	-.16	-.15
		.10	.10	.10		.15	.18	.18
SOCIAL CLASS								
1	49	-.43	-.21	-.24	13	-.18	-.17	-.20
2	72	-.06	-.07	-.08	26	.05	-.07	-.08
3	39	-.25	-.16	-.07	21	-.09	-.04	-.05
4	75	.04	.03	.01	33	.19	.25	.28
5	108	.30	.18	.18	60	-.06	-.06	-.06
		.12	.07	.07		.08	.10	.11
MULTIPLE R SQUARED								
		.115	.135				.043	.045
MULTIPLE R								
		.340	.367				.208	.212

that the effects of the different learning mechanisms of social interaction and modelling operate differently according to the cognitive stage of the adolescent. In line with this reasoning, the effects of family socialization (and here, also, parents' attitudes to TV program selections) are significantly operative only for the younger adolescents, while the structural dimensions of social class (and here, parental TV viewing) are more operative for the older adolescents.

Finally, the social class effects in Tables 6.8 and 6.9 are of considerable theoretical importance. In these tables, controlling intensively for various dimensions of adolescent life experiences; i.e. both family and peer socialization as well as the parental TV uses variables, the social class effects, being moderately strong, are not affected for the 9th grade adolescents, while on the other hand, the same controls reduce the social class effects for the 5th graders considerably.

TV-relations: Table 6.10 demonstrates the expected results for adolescents' TV relations, that is, 'non-effects' between TV relations and any kind of modelling mechanisms, for both age groups.

6.4.2 Social Class and Modelling

Having studied the effects of cognitive development on modelling and social interaction influences, we turn now to social class. In order to explore the structural effects of middle and working social class subcultures on the different learning mechanisms under study, Tables 6.11, 6.12 and 6.13 present the analysis of the adolescents' TV use variables, carried out separately for middle and working class families.

TV viewing: Table 6.11, presenting the adolescents' TV viewing, indicates clearly that the modelling mechanism is a stronger factor in the TV viewing of working class

adolescents than for their middle class schoolmates. After control the relationship remains relatively strong for the working class adolescents but only moderately strong for the middle class adolescents. Also, the parents' preferences are stronger predictors of adolescent TV viewing for working class adolescents than for middle class ones. This difference disappears, however, when adjusted for the other variables in the analysis.

For the middle class adolescents, on the other hand, there is some support, admittedly weak and non-significant, for the hypothesis that the learning mechanism of social interaction is more operative than is the case for working class adolescents. This trend is most prominent for the peer relation variable.

Middle class adolescents' TV viewing is affected positively by their relations to peers while working class adolescents are not. While the family socialization or interaction variables, therefore, do not show much difference after controlling, there is a clear difference when the unadjusted relationships are examined, suggesting that the family communication pattern may be more of a middle class learning mechanism than a working class one.

TV program preferences: For the TV program preferences, presented in Table 6.12, the modelling effects are low for both social class subcultures. However, for the working class adolescents, the parents' preferences are the highest and only significant predictor of their own TV preferences. Table 6.12 demonstrates, however, further evidence for the assumption that the mechanism of social interaction is more operative in the middle class family environment than is the case for working class families. The concept family communication dimension is an especially effective predictor in the middle class sample.

Table 6.11 MCA of adolescents' TV viewing by parental TV viewing and preferences, family communication and peer relations with parental TV attitudes and adolescents' leisure activities. Separately for working and middle classes

Middle class Grand mean = 24.02					Working class Grand mean = 30.20					
Variables	N	Unadj.	Eta	Adj.for indep. Beta	Adj.for indep. +covar. Beta	N	Unadj.	Eta	Adj.for indep. Beta	Adj.for indep. +covar. Beta
PARENTAL TV VIEWING										
1 low	98	-3.29		-3.09	-2.75	65	-6.62		-6.12	-5.35
2 medium	76	1.10		.91	.59	91	-2.50		-2.56	-2.42
3 high	46	5.19		5.09	4.90	120	5.48		5.26	5.01
			.25	.24	.22			.34	.33	***
										.31
PARENTAL TV PREFERENCES										
1 low	34	1.91		.45	.66	83	3.10		2.12	1.56
2 medium	93	.59		.70	.84	106	-.35		-.47	-.12
3 high	93	-1.28		-.87	-1.09	87	-2.53		-1.45	-1.34
			.09	.06	.07			.15	.10	.08
SOCIO ORIENTATION										
1 low	90	-1.81		-.69	.36	63	-1.87		-1.35	-.57
2 medium	86	1.20		.43	-.05	93	.76		.40	.66
3 high	44	1.34		.57	-.63	120	.39		.40	-.22
			.12	.04	.03			.07	.05	.03
CONCEPT ORIENTATION										
1 low	66	1.46		1.18	1.36	132	-.25		-.59	-.47
2 medium	61	.01		-.51	-.32	83	-.23		.04	-.12
3 high	93	-1.04		-.50	-.75	61	.86		1.23	1.18
			.08	.06	.07			.03	.05	.04
PEER RELATIONS										
1 low	81	-1.15		-.79	-.77	79	-.34		-.70	-1.01
2 medium	79	-.83		-1.14	-1.69	96	-1.08		-.58	-.31
3 high	60	2.65		2.57	3.26	101	1.29		1.10	1.09
			.12	.12	.16			.07	.06	.06
MULTIPLE R SQUARED				.090	.157				.136	.174
MULTIPLE R				.300	.396				.369	.418

communication and peer relations with parental TV attitudes and adolescents' leisure activities. Separately for working and middle classes

Variables	Middle class Grand mean = 4.30				Working class Grand mean = 3.69			
	N	Unadj. Eta	Adj. for indep.	Beta + covar.	N	Unadj. Eta	Adj. for indep.	Beta + covar.
PARENTAL TV VIEWING								
1 low	98	.10	.10	.11	65	-.06	-.10	-.12
2 medium	76	.03	.01	.01	91	.01	.00	-.01
3 high	46	-.26	-.24	-.24	120	.02	.05	.08
		.07	.07	.07		.03	.05	.06
PARENTAL TV PREFERENCES								
1 low	34	-.24	-.22	-.24	83	-.30	-.29	-.25
2 medium	93	-.21	-.16	-.16	106	.06	.06	.04
3 high	93	.30	.24	.25	87	.22	.21	.18
		.14	.11	.12		.17	.16	.14
SOCIO ORIENTATION								
1 low	90	-.07	-.20	-.19	63	.11	.06	-.01
2 medium	86	.21	.31	.32	93	-.01	.02	.02
3 high	44	-.28	-.21	-.24	120	-.05	-.04	-.01
		.10	.14	.14		.05	.03	.01
CONCEPT ORIENTATION								
1 low	66	-.56	-.55	-.53	132	-.09	-.05	-.05
2 medium	61	.26	.24	.22	83	-.06	-.08	-.08
3 high	93	.23	.24	.23	61	.28	.23	.22
		.20	.20	.19		.12	.10	.09
PEER RELATIONS								
1 low	81	.17	.13	.15	79	.07	.06	.10
2 medium	79	-.19	-.10	-.10	96	-.02	-.01	-.02
3 high	60	.02	-.05	-.07	101	-.03	-.04	-.06
		.08	.06	.06		.04	.03	.05
MULTIPLE R SQUARED			.077	.082			.042	.057
MULTIPLE R			.278	.286			.204	.240

Table 6.13 MCA of adolescents' TV relations by parental TV viewing and preferences, family communication and peer relations with parental TV attitudes and adolescents' leisure activities. Separately for working and middle classes

Variables	Middle class Grand mean = 2.05			Working class Grand mean = 2.29		
	N	Unadj. Eta	Adj. for indep. Beta + covar.	N	Unadj. Eta	Adj. for indep. Beta + covar.
PARENTAL TV VIEWING						
1 low	98	-.09	-.01	65	-.16	-.13
2 medium	76	-.04	-.13	91	-.03	-.00
3 high	46	.26	.23	120	.11	.07
		.07	.07		.05	.04
PARENTAL TV PREFERENCES						
1 low	34	.05	.04	83	.07	-.03
2 medium	93	.09	.12	106	.19	.22
3 high	93	-.11	-.14	87	-.30	-.24
		.05	.06		.10	.09
SOCIO ORIENTATION						
1 low	90	-.12	-.02	63	-.25	-.12
2 medium	86	.09	.03	93	.03	-.07
3 high	44	.08	-.03	120	.11	.12
		.05	.01		.07	.07
CONCEPT ORIENTATION						
1 low	66	.15	.10	132	.15	.16
2 medium	61	.30	.28	83	-.15	-.15
3 high	93	-.30	-.26	61	-.12	-.14
		.14	.12		.07	.07
PEER RELATIONS						
1 low	81	-.48	-.48	79	-.28	-.26
2 medium	79	-.00	-.01	96	-.28	-.26
3 high	60	.65	.66	101	.48	.46
		.24	.24		.18	.17
MULTIPLE R SQUARED			.083			.052
MULTIPLE R			.119			.084
			.345			.289

TV relations: Finally, examining the adolescents' TV relations in Table 6.13, the variance explained is low for both the social class samples. As expected, the modelling variables are of no significant importance. On the other hand, there are indicators that even for TV relations, the interactional learning mechanisms are more effective for middle class adolescents than for working class ones. Both the concept-orientation and, especially, peer relations are more strongly related to the TV relations in the case of the middle class students. Middle class students coming from highly concept-oriented families are low on the TV relations, while those with rich peer involvement are high on these relations. For the working class students the peer relations are also a significant predictor, although considerably lower.

In conclusion, for all the various TV use variables, social interaction exerts greater influences for adolescents raised in middle class families, while the modelling mechanism was demonstrated to be more an expression of the working class life experience.

6.5 Reinforcement

Previous research has registered only meagre evidence on the reinforcement learning mechanism and adolescents' television use (McLeod and Brown 1976). This negative result is strongly supported in the present study. As the number of children and parents reporting parental control of adolescent TV use, both on viewing and specific programs, was so small as to render any statistical analysis irrelevant, we have to conclude that reinforcement is an unlikely alternative to the social interaction and modelling explanations.

6.6 Some Moral Aspects of Adolescent TV Viewing

In Table 6.14 we present the adolescents' answers to some questions concerning their TV viewing. First, the adolescents were asked if they would miss TV if, due to accident, strike etc, it would not be at hand. Secondly, they were asked if they would want to watch more TV if they could. And thirdly, they were asked if they should watch less TV than they did. The adolescents were rated low, middle and high on these questions.

We see from Table 6.14 that working class adolescents in the 5th grade would miss TV significantly more than their middle class counterparts. For the 9th graders, this relationship is the same as with the 5th graders, only weaker and not significant. These results indicate a stronger dependence on TV for the working class adolescents than is the case for adolescents from middle class families and, not surprisingly, stronger for younger than for older adolescents. Mass media research has shown these two groups to be extremely dependent on TV in their leisure activities. Although not significant, the middle class adolescents, as could be expected, admit more guilt about their TV viewing than do working class offspring, and, also according to expectation, these differences increase as the children grow older.

Table 6.14 Three moral aspects of adolescents' TV viewing by social class and grade (Gamma)

Moral aspects	5th grade	9th grade
Would miss TV	-.35**	-.26
Would want more TV	-.27**	-.15
Should watch less TV	.21	.35*

7. THE CONSEQUENCES OF MASS MEDIA USE

In the preceding chapters, we have been concerned with adolescent mass media use in itself. Most people, however, are interested in adolescent mass media use because of the consequences for the adolescents' behaviour and attitudes.

7.1 Changing Perspectives in Media Effects

Most recent criticism of mass media effect research is directed towards the old Stimulus - Response model. Here, the individual is seen as a passive recipient of media messages, while socialization is seen as imprinting external codes in the individual's mind. The main concern is with direct mass media effects and little attention is given to the effects of broader social structures such as work experience, the urban milieu and so on. The increasing criticism of this approach is based on theoretical as well as practical grounds. First, the experimental or quasi-experimental nature of this approach has shown surprisingly little convincing evidence of mass media effects. McLeod and Brown (1976) point out that an important factor in explaining this failure is the predominant focus which S-R research places on mass media and aggression, rather than looking for the more likely consequences of mass media use, such as information gaps and cognitive change.

Starting from this criticism, we come to the notion of mass media effects as an indirect phenomena. Thus, Halloran (1970) states that we must ask ourselves whether the question about the direct effects of television on attitudes and behaviour is worth asking. Instead, he recommends that we study the possibility of television exerting its influence indirectly, through or together with the other agencies in the socialization process.

De Fleur (1970), when discussing this new approach in mass media research labelled it 'the Socio-Cultural model of the influences of mass media'. In this model the mass media are not seen as having a direct effect on the individual, but instead as having important consequences for society by shaping the materials of knowledge, norms and judgments which people acquire and use in everyday life. In other words, the mass media are among the most important, if not the most important, agenda-setting agencies in society. McQuail (1976) claims the Socio-Cultural model of media effects to be entirely justified but points out the danger of swinging the pendulum too far in this new direction.

"However, it is important not to lose sight of the possibility that television like other mass media, can also have direct effects".
(McQuail 1976:344)

These new perspectives in mass media effects have manifested themselves in research on topics like information gaps and agenda-setting functions. Interestingly enough, some new research has brought back the notion of the effectiveness of the mass media. This is best shown in the works by Gerbner and his associates in Philadelphia and Noelle Neumann and her associates in Mainz, FRD (cf Katz and Szecskö 1981).

Questioning the old S-R view on TV and violence, Gerbner and Gross have stated:

"Fear may be a more critical concomitant of a show of violence than aggression. Assumptions about life and conceptions of social reality may be more telling indicators of what violent representation cultivates than any individual behaviour. Acceptance of violence and passivity in the face of injustice may be consequences of great social concern".
(Gerbner and Gross, cited in Gross and Jeffries-Fox 1978:243)

The role of the mass media in determining the importance of topics for individuals and societies has been

labelled the 'agenda-setting function of mass communication' (McCombs and Shaw 1972, McLeod and Becker 1974). Here, people's behaviour is seen as a possible consequence of a growing awareness of some issues or symbols. The consequence is expected to be new or increased attention, cognitive change, and sometimes altered behaviour. Writing on the consequences of this agenda-setting function, Gerbner states:

"The dominant agencies of communication produce the messages that cultivate the dominant image patterns. They structure public agenda of existence, priorities, values and relations". (Gerbner 1972:159)

The mass media can be seen as the most important voices of what Marx and Engels (1970) call 'the ideology of the ruling classes'. For television, this class dominance is an especially effective one. Television, unlike the older written media, has become predominantly the media of the working classes, thus exposing these classes more to the ruling ideology than ever before in history. As Kjellmor, Lundberg and Nowak (1978) have stressed, the reality presented in the information contents of television is often not related to the reality of most common people. Such contents, in combination with the entertainment contents, may alienate people from important problems in their own environment - either by bypassing these problems altogether or by making them untangible or irrelevant. Thus, when we relate people's mass media use to their social position, we have to consider to what degree their class culture structures selective perception in particular ways.

7.2 Social Class and Mass Media Consequences

The recent research findings of Gerbner in America and Noelle Neumann in West Germany on the effectiveness of the mass media, especially television, make the heavy viewing feature of working class media use an important

issue for research. To what extent does heavy viewing reinforce passivity and awaken new forms of socialization? Both Gerbner (1976) and Noelle Neumann (1976) argue that television reduces selective perception and produces standardized norms replacing more selective class cultural norms. Gerbner argues that television, unlike the other mass media, presents a total rather than a selective symbolic environment. The television viewers select times, not programs. He concludes:

"All this adds up to a non-selectivity used culture pattern which no longer serves the tasks of cultivating selective and differentiated group, class and other public consciousness. The pattern is formula bound, ritualistic, repetitive. It thrives on novelty but is resistant to change, and it cultivates resistance to change. In that, too, television's social symbolic functions resemble pre-industrial religion more than they do the media that preceded them". (Gerbner 1976:8)

Television has, then, become the new opium of the people tranquilizing the working classes. But as Piepe et al (1978) rightly point out, Gerbner's assumptions that television contents are undifferentiated, and the response of the audiences homogeneous, are highly bound to American television. Nevertheless, Gerbner's empirical work shows convincing evidence of television's capacity to structure people's conceptions. In West Germany, Noelle Neumann has also found television to reduce selective perception:

"... The principle of selective perception was discovered and offered as the explanation why mass media are not effective in changing attitudes. But that was in the era before television. Now we can use this principle to explain why television is effective, why television changes attitudes". (Noelle Neumann 1976:11)

Gerbner's theses have been criticized in England by Piepe and his colleagues (1978) and in the USA by Newcomb (1978) and more recently by Hughes (1980) and especially Hirsch (1980). Piepe and Newcomb admit the im-

portance of Gerbner's empirical findings, but strongly doubt his theories on selective perception. Newcomb (1978:268) suggest "that the leap from nonselective to nonperceptive is unwarranted". And Piepe et al state:

"This cultural version of technological determinism is unacceptable, first because it fails to take cultural variations into account, and secondly, it grossly simplifies the complex nature of the demand for mass media in differentiated society". (Piepe et al 1978:43)

In their own research on social class and mass media use, Piepe et al found that the working class used television non-selectively, much in accordance with Gerbner's theses, while the middle class was found to be highly selective in its use of television.

However, Hirsch (1980) and Hughes (1980) strongly question the empirical results obtained by Gerbner and his colleagues. The critique takes the form of two observations. First, the already low zero-order relationships that exist between the amount of TV viewing and Gerbner's variables on social perception are severely decreased when put to a multiple control by Hughes and Hirsch in their reanalyses of Gerbner's data. Second, the relationships obtained are more often than not curvilinear. These empirical critiques will be dealt with to a greater extent in section 7.5 when we analyze our own data using some of Gerbner's questions.

It is hypothesized that the Uses and Gratification approach, building on the free choice of the audience, is rather more accurate when analyzing middle class television behaviour, while Gerbner's theses seem more appropriate when working class media use is examined. But - and this is important - not because of the unique features of television postulated by Gerbner. Rather, we hold it to be the economic, political and social structure of society, determining people's

subcultures, that are the causal factors. That the working classes use television in the way described by Gerbner, is a consequence of their specific experience in the process of work and community life, constraining their possibilities to use media, which leads to passive and non-selective media behaviour.

As pointed out by Piepe et al, however, the central importance of Gerbner's work for the study of working class television use lies in his findings that learning occurs not only when people are interested in the subject, but also when interest and involvement are low, making passive and non-selective media use a potential instrument of media effects, as well as the more selective use.

Similarly, middle class media behaviour, more appropriately described in the uses and gratification terms of an active and goal-seeking media use, is better explained by the middle classes' more autonomous work and community experience, rather than the uses and gratifications causal explanations, which build on some vague conceptions of basic human needs.

The socio-economic structural effects put forward here are likely to operate through differences in cognitive skills, and more specifically verbal facilities (see the theoretical discussion in chapter 3). These differences determine television use and are in turn amplified by differential use of television.

To summarize, working class versus middle class television use can be presented as two ideal types, although in reality, of course, there is considerable overlapping in the mass media use of these two classes. Piepe et al (1978:46) have brought together the concepts of culture, communication and perception to demonstrate these two ideal types of middle and working class media use. Their paradigm is shown in figure 7.1.

Figure 7.1 Profiles of Television Use
(From Piepe et al 1978)

MIDDLE CLASS	WORKING CLASS
Light viewing. Relatively low involvement in medium	Heavy viewing. Relatively high involvement in medium
Relatively high involvement in specific programs or program types	Average low involvement in specific programs and program types
Selective perception. Ability to reject dissonant messages	Blanked perception. Acceptance of dissonant messages. Sleeper effects
Inner direction. Cognitive orientation to medium	Other direction. Media orientation to reality

We now turn to the different dimensions of adolescents' world view and societal perception, analyzing the possible effects of TV use and social circumstances on these, and starting with knowledge of news events.

7.3 Adolescents' Knowledge of Recent News Events

7.3.1 Introductory Remarks

The knowledge gap hypothesis was introduced into mass communication literature by Tichenor, Donahue and Olien (1970). The hypothesis asserts that as the infusion of mass media information into a social system increases, segments of the population with higher socio-economic status (SES) tend to acquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase.

Four possible causal factors are suggested by Tichenor and his associates (1970:159), which may account for knowledge gaps between higher and lower class persons:

- 1) Differences in existing knowledge from prior exposure
- 2) Differences in communication skills between middle and working class people
- 3) Differences in amount of social contact relevant to the topic under study (i e public affairs)
- 4) Differences in exposure and retention of information

For our purpose, the selective exposure is of special interest. As we have already discussed at some length, class differences in media exposure (both time and preferences) are well documented in the literature and similar differences in retention of information have also been demonstrated, (see e g Williams and Linsay 1971). Thus, Ettama and Kline (1977) state that differences in exposure and retention could easily be seen as explaining knowledge gaps. But they also point out that, in their turn, these differences require explanation, presumably the differential motivation to acquire information. All this, of course, has the theoretical implication stated above that selective (or passive, depending on the class in question) mass media exposure is seen as an intervening variable linking class-based motivation to consequences, seen in differential knowledge and interest acquisitions.

These class and media factors, however, do not work wholly unrestrained. When, for example, adolescents high in knowledge find no need for more information, they may lower their motivation causing the adolescents lower in knowledge to gain on them (e g Kline, Miller and Morris 1974). This effect has been labelled the 'ceiling effect'.

To conclude, in developing a theory of knowledge and interest gaps, three categories of possible causal factors can be identified (Ettema and Kline 1977):

- 1) Trans-situational deficits (e g lack of communication skills)
- 2) Differences in distribution of motivations to acquire the information under study
- 3) The ceiling effects

Theoretically, the first factor can be linked to the difference in the socio and concept orientations analyzed in this study, with adolescents from concept oriented families higher in communication skills and, therefore, privileged in their media use. The second factor, differences in motivation to obtain information, can be theoretically linked directly to the adolescents' social position.

7.3.2 Operationalizations

In an attempt to measure the adolescents' knowledge of recent news events, the adolescents were asked to write down as many current news items as they could remember in two minutes. By this simple device we get a measure of their involvement in broader social activities simply by the number of items remembered (cf Himmelweit et al 1958).

7.3.3 Knowledge of Recent News Events and Different Socialization Agents

In this section we will analyze the amount of news items by social class and the adolescents' intra and extra family relations as well as the different TV use variables. Table 7.1, which presents news items analyzed by family socialization and peer relation with social class as covariate, clearly demonstrates that these dimensions of the adolescent life experiences

Table 7.1 MCA of recent news event by family socialization and peer relations with social class.
Separately for 5:th and 9:th grade

		5:th grade Grand mean = 3.98			9:th grade Grand mean = 4.26			
Variable	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. +covar. Beta	N	Unadj. Eta	Adj. for indep. Beta	Adj. for indep. Beta +covar. Beta
SOCIO FAMILY COMMUNICATION								
1 low	109	.16	.12	.11	41	-.09	.02	.05
2 medium	110	-.17	-.14	-.16	52	.18	.13	.14
3 high	92	.01	.03	.06	51	-.11	-.15	-.19
		.06	.05	.05		.08	.07	.08
CONCEPT FAMILY COMMUNICATION								
1 low	120	-.08	-.04	-.02	58	.18	.16	.12
2 medium	92	.26	.23	.22	37	-.13	-.11	-.11
3 high	99	-.15	-.16	-.18	49	-.12	-.10	-.06
		.07	.07	.07		.09	.08	.06
POSITIVE PARENTAL TV ATTITUDES								
1 low	124	.13	.11	.08	53	-.11	-.13	-.12
2 medium	130	.06	.07	.08	53	-.08	-.09	-.09
3 high	57	-.42	-.40	-.37	38	.26	.30	.29
		.09	.08	.07		.09	.11	.10
ADDICTIVE PARENTAL TV ATTITUDES								
1 low	158	.04	.05	.05	94	-.07	-.10	-.10
2 medium	127	-.06	-.07	-.07	44	.12	.16	.16
3 high	26	.09	.03	.01	6	.24	.33	.33
		.02	.02	.03		.06	.08	.08
PEER RELATIONS								
1 low	106	-.01	-.02	-.03	42	.12	.08	.10
2 medium	107	-.04	-.04	-.06	59	-.01	.02	.03
3 high	98	.06	.07	.09	43	-.10	-.11	-.13
		.02	.02	.03		.05	.04	.05
MULTIPLE R SQUARED								
			.015	.018			.028	.032
MULTIPLE R								
			.124	.133			.166	.178

have no noticeable effects on recall of news items, neither for 5th nor 9th grade adolescents.

Turning to the possible consequences of the TV use variables on the number of news items mentioned, table 7.2 presents the analysis of the news items by TV viewing, relations and preferences as well as social class, with family socialization and peer relations as covariates. Evidently the TV use variables fare better, if not impressively so, in explaining the news items mentioned than did the socialization variables. For the younger adolescents, TV viewing, i e the sheer amount of time, is the most important predictor of the news items, while for the older adolescents program preferences take over as the most important factor. For the 5th graders, however, the moderately strong relationship between TV viewing and news items is not linear, making the interpretation difficult. The heavy viewing group scores highest on the news items while the middle group scores lowest. For the older adolescents, the admittedly rather weak and nonsignificant relationship between the news items mentioned and the TV program preferences is more easily interpreted. As a consequence of cognitive development, program preferences, while not important at the concrete stage, become increasingly important as the adolescents reach the formal operational stage. Logically, preference for informative TV programs increases the adolescents' knowledge level. These results are not affected by the social class and socialization controls.

The dimension of knowledge acquisition does not seem to depend on the adolescents' relations with the TV content consumed; for neither age group the TV relation variable adds to the explanation of the adolescents' knowledge of recent news events. Finally, turning to the direct influences of social class, no systematic significant effects are obtained for neither the 5th nor the 9th grade groups.

Table 7.2 MCA of recent news event by adolescents' TV viewing, relations, preferences and social class with family socialization and peer relations. Separately for 5:th and 9:th grade

5:th grade Grand mean = 3.98		9:th grade Grand mean = 4.31								
Variable	N	Unadj.	Eta	Adj.for indep. Beta	Adj.for indep. +covar. Beta	N	Unadj.	Eta	Adj.for indep. Beta	Adj.for indep. +covar. Beta
ADOLESCENT TV VIEWING										
1 low	108	.04		.09	.09	45	-.13		-.15	-.14
2 medium	98	.55		.57	.57	43	.15		.12	.16
3 high	90	-.65		-.73	-.72	44	-.02		.04	-.01
			.21	.22	.22			.07	.06	.07
ADOLESCENT TV RELATIONS										
1 low	70	-.19		-.24	-.26	65	-.08		-.05	-.07
2 medium	114	.08		-.05	-.02	39	-.00		-.03	-.01
3 high	112	.04		.21	.18	28	.19		.16	.18
			.05	.08	.07			.06	.05	.06
ADOLESCENT TV PREFERENCES										
1 low	129	-.21		-.17	-.16	69	-.12		-.15	-.15
2 medium	71	.26		.15	.13	22	-.17		-.19	-.20
3 high	96	.09		.12	.12	41	.30		.35	.36
			.08	.06	.06			.12	.14	.14
SOCIAL CLASS										
1	49	-.04		-.13	-.20	11	-.13		-.24	-.09
2	63	.25		.13	.07	26	-.16		-.17	-.11
3	35	-.09		-.15	-.16	17	-.37		-.44	-.42
4	63	.39		.52	.54	30	.36		.36	.28
5	86	-.41		-.34	-.27	48	.02		.08	.05
			.13	.15	.12			.13	.14	.13
MULTIPLE R SQUARED				.042	.055				.070	.080
MULTIPLE R				.206	.234				.265	.282

All in all, the variable measuring the level of knowledge about news items is ill explained indeed. This is the case even if the combined multiple effect of social class, socialization and TV use variables are operating in the analysis.

7.4 Occupational Roles and TV

7.4.1 Introductory Remarks

In the preceeding pages we have been concerned primarily with mass media news and its consequences for adolescent knowledge and interest gaps. These effects, of course, are not necessarily limited to news contents. Research has shown children and adolescents to acquire knowledge and preferences about different occupations from mass media entertainment contents. When children do not have access to real life examples of the occupations in question they simply have little opportunity to compare the world of television with the real world of work. This fact becomes especially important in the case of older adolescents facing the choice of secondary education or looking for work opportunities. As McLeod and Brown (1976) point out, handling these important choices entails a confrontation between the youth's aspirations and the reality of his or her position in society. It is, therefore, likely that former choices of dream jobs become restricted by the constraints of economic and social resources. Also, the social position of the adolescents' family becomes more salient for their choice of work as they grow older. Our research question, therefore, will here be how the work aspirations of children and younger adolescents change according to age and class.

DeFleur and DeFleur (1967) found that television use influenced children's occupational knowledge, most powerfully so knowledge of occupations frequent in the world of television but scarce in real life:

"(It) seems safe to conclude that, within the limits of the present sample of children and occupations, television is a more potent source of occupational status knowledge than either personal contact or the general community culture". (DeFleur and DeFleur 1967: 787)

Gross and Jeffries-Fox (1978) also found that television was indeed a potent source of 'incidental' learning for children concerning adult occupational roles.

What then are the children learning from television (and other mass media)? Two issues have been the main concern for research. First, the amount of representation given to an occupation, as compared to its real representation in the labour force. Secondly, the amount of stereotyping involved in the portrayal of a given occupation.

In the case of amount of representation, DeFleur (1964) found professional occupations to be substantially overrepresented. Later, Seeger and Wheeler (1973), like DeFleur, found that there was an overrepresentation of all groups with high occupational prestige, while there was an underrepresentation of all groups with little prestige.

In the case of stereotyping, recent research has indicated that TV affects children's and adolescents' attitudes towards different occupations. (DeFleur and DeFleur 1967, Beut 1974, O'Bryant and Corber-Bolz 1978, and Gross and Jeffries-Fox 1978).

7.4.2 Operationalization

The adolescents were asked what kind of work they would most like to do after leaving school, and, on the other hand, what they actually expected to become when finishing school. The answers to these questions, expected to tap the adolescents future dream and real

occupation expectations respectively, were coded according to their social class position, using the same scale as for the classification of the parents' occupations. The adolescents were further asked from what source they had got their information about their real and dream job choices. These questions were coded on the dimension media versus non-media source of information.

7.4.3 Future Job Choices

In this section the measures of the adolescents' dream and real job expectations will be related to the social class and socialization variables as well as to the three TV use variables.

We turn first to the social class position of the adolescents' future dream job choices. Table 7.3 presents the effects of family socialization and peer relations on the dream job preferences. The family communication patterns (socio and concept) are moderately strongly related to the adolescents' future dream job choices in the case of the older adolescents, while the same is not true for the younger ones. These results are rather consistent even after controlling for other socialization variables and social class. As expected, adolescents socialized in concept oriented families prefer high social class occupations as desirable in the future, while adolescents socialized in predominantly socio-oriented families are more inclined to prefer occupations of low social class origins.

The effects of the parental TV attitude scales on the adolescents' future job choices are mixed. For the younger adolescents, the positive attitude leads to lower social class occupational preferences. This relationship, however, does not withstand the controlling procedure well. In the case of the older adolescents, rather surprisingly, the addictive attitude is

Table 7.3 MCA of social class of adolescents' future dream job orientation by family socialization and peer relations with social class. Separately for 5:th and 9:th grade

Variables	5:th grade				9:th grade			
	Grand mean = 3.28				Grand mean = 2.87			
	N	Unadj.	Eta	Adj. for indep. Beta +covar. Beta	N	Unadj.	Eta	Adj. for indep. Beta +covar. Beta
SOCIO FAMILY COMMUNICATION								
1 low	54	-.22	-.21	-.20	27	-.32	-.33	-.31
2 medium	65	.08	.05	.07	34	.10	.15	.16
3 high	47	.15	.16	.13	34	.16	.11	.09
			.13			.21		.20
CONCEPT FAMILY COMMUNICATION								
1 low	70	.18	.09	.03	37	.15	.12	.11
2 medium	47	-.15	-.13	-.12	27	.13	.09	.10
3 high	49	-.11	-.01	.06	31	-.29	-.23	-.22
		.13	.08	.06		.21	.16	.16
POSITIVE PARENTAL ATTITUDE								
1 low	67	-.29	-.23	-.14	37	-.01	.12	.11
2 medium	70	.11	.10	.07	33	.01	-.00	.00
3 high	29	.41	.30	.17	25	.01	-.17	-.16
		.22	.17	.11 (*)		.01	.12	.11
ADDICTIVE PARENTAL ATTITUDE								
1 low	79	.18	.17	.14	61	.14	.18	.18
2 medium	72	-.15	-.17	-.15	32	-.22	-.30	-.29
3 high	15	-.21	-.10	-.01	2	-.87	-.68	-.71
		.15	.14	.12		.22	.25	.25 (*)
PEER RELATIONS								
1 low	58	-.05	-.01	.04	29	-.15	-.09	-.09
2 medium	51	-.06	-.02	.02	39	.13	.09	.10
3 high	57	.11	.03	-.05	27	-.02	-.02	-.04
		.07	.02	.03		.12	.08	.09
MULTIPLE R SQUARED			.087	.163			.142	.144
MULTIPLE R			.294	.404			.377	.380

moderately strongly related to the adolescents dream job choice, reinforcing higher social class occupational choices. Finally, the adolescents peer relations are demonstrated in table 7.3 to be of little importance to their dream job preferences.

In table 7.4 we analyze the effects of the three TV use variables, TV viewing, TV relations and TV preferences as well as social class on the adolescents future dream job choices, whilst controlling for the socialization variables. From the table we see that TV influences the older adolescents dream job preferences to a greater degree than it does the younger adolescents' dream job preferences. This is in line with the anticipated effects of cognitive development. Future job choices are a more salient topic for adolescents at the formal operative stage than at the concrete stage.

Concentrating on the older adolescents, it is illuminating to notice that the adolescents' involvement with the TV content consumed is a more powerful predictor of the adolescents' future dream job choices than are TV preferences or time spent watching TV. The relationship between the adolescents' TV relations and dream job preferences is moderately strong and linear, although it decreases somewhat with controls, demonstrating that high involvement with TV leads to greater preferences for higher class occupations than does low involvement with the TV content consumed.

In line with Gerbner's theory, the amount of time spent watching TV has a linear, although non-significant, effect on the older adolescents' dream job choices. Heavy TV viewing reinforces preferences for the high social class occupations which are so heavily overrepresented on the television screen. These results demonstrate the theoretical importance of combining within a single 'uses and effects' conceptual framework both the traditional effects approaches mea-

Table 7.4

MCA of social class of adolescents' future dream job orientation by TV viewing, relations, preferences, and social class with family socialization and peer relations. Separately for 5:th and 9:th grade

Variable	5:th grade			9:th grade		
	Grand mean = 2.52			Grand mean = 2.44		
	N	Unadj. Eta	Adj.for indep. Beta	N	Unadj. Eta	Adj.for indep. Beta + covar. Beta
ADOLESCENT TV VIEWING						
1 low	97	-.04	.04	43	.21	.20
2 medium	85	-.14	-.18	41	-.08	-.03
3 high	83	.19	.14	36	-.16	-.20
		.09	.09		.14	.14
						.13
ADOLESCENT TV RELATIONS						
1 low	63	.14	.23	61	.28	.22
2 medium	103	-.03	.01	33	-.23	-.15
3 high	99	-.06	-.16	26	-.36	-.32
		.06	.10		.25	.20
						.18 (*)
ADOLESCENT TV PREFERENCES						
1 low	117	.07	.02	63	.02	.03
2 medium	67	.03	.09	20	.16	.05
3 high	81	-.12	-.10	37	-.12	-.07
		.06	.05		.08	.04
						.07
SOCIAL CLASS						
1	35	-.38	-.39	9	.22	.14
2	63	-.38	-.38	21	-.39	-.36
3	33	-.22	-.25	16	-.07	-.02
4	49	-.01	-.02	28	.02	.04
5	85	.53	.55	46	.15	.12
		.27	.28		.17	.15
						.15
MULTIPLE R SQUARED		.092	.100		.097	.198
MULTIPLE R		.303	.316		.312	.445

surements of exposure (i.e. time spent watching TV) and the more 'functionally' oriented uses and gratification approaches measurements, exemplified by our measurement of TV relations. These add a depth to our analysis, that could not have been obtained by analyzing the effects of exposure alone. This line of reasoning is in accordance with the opinion advocated by Windahl (1980), that a typology of TV use, based on amount of viewing and strength of relations could prove to be a strong research tool when analyzing the consequences and effects of television.

Finally, social class has a moderately strong effect on the adolescents' future dream job choices. Contrary to expectations, however, the relationship is linear only for the younger adolescents, where, as expected, high social position of the adolescents' parents increases adolescents' choices of higher class dream jobs. For the older adolescents the relationships has no clear systematic pattern and is difficult to interpret.

Turning to the adolescents' expectations of their real job in the future as presented in tables 7.5 and 7.6, we find much the same pattern of influence from the socialization variables as was the case for the dream job choices. The zero-order relationships, although all weakened considerably after controls, indicate high 'socio' for the younger adolescents and low 'concept' family communication orientations for the older adolescents to reinforce low social class occupational expectations. For both age groups high positive parental TV attitudes stimulate low social class expectations.

Examining the influences of the TV use variables and social class, presented in table 7.6, we find that the emerging causal structure differs in an interesting way from that of the dream job choices. For both age groups, contrary to the dream job choices, high TV viewing leads to low social class occupational expect-

Table 7.5 MCA of social class of adolescents' real job orientation by family socialization and peer relations with social class. Separately for 5:th and 9:th grade

Variable	5:th grade			9:th grade		
	Grand mean = 3.67			Grand mean = 3.41		
	N	Unadj. Eta	Adj. for indep. Beta + covar. Beta	N	Unadj. Eta	Adj. for indep. Beta + covar. Beta
SOCIO FAMILY COMMUNICATION						
1 low	54	-.15	-.09	27	-.41	-.21
2 medium	65	.13	.10	34	.12	.02
3 high	47	-.01	-.03	34	.21	.15
		.11	.08		.26	.25
						.15(*)
CONCEPT FAMILY COMMUNICATION						
1 low	70	.12	.08	37	.10	-.01
2 medium	47	.12	.12	27	.07	.06
3 high	49	-.28	-.23	31	-.18	-.04
		.17	.14		.13	.05
						.04
POSITIVE PARENTAL TV ATTITUDES						
1 low	67	-.21	-.18	37	-.22	-.22
2 medium	70	.06	.05	33	.10	.17
3 high	29	.33	.29	25	.19	.10
		.18	.16		.18	.14
						.18
ADDICTIVE PARENTAL TV ATTITUDES						
1 low	79	.09	.03	61	-.03	-.04
2 medium	72	-.10	-.06	32	.06	.09
3 high	15	-.00	.07	2	.09	-.17
		.09	.05		.05	.03
						.07
PEER RELATIONS						
1 low	58	.00	.03	29	.11	.13
2 medium	51	-.08	-.05	39	-.18	-.14
3 high	57	.07	.01	27	.15	.07
		.06	.03		.15	.19
						.12
MULTIPLE R SQUARED						
			.068			.119
			.260			.346
MULTIPLE R						
			.132			.198
			.363			.445

Table 7.6 MCA of social class of adolescents future near job orientation by sex, grade, and year of birth. The table shows the results of the MCA for 5:th and 9:th grade preferences and social class with family socialization and peer relations. Separately for 5:th and 9:th grade

Variables	5:th grade				9:th grade			
	Grand mean = 3.54				Grand mean = 3.65			
	N	Unadj.	Eta	Adj. for indep. Beta +covar. Beta	N	Unadj.	Eta	Adj. for indep. Beta +covar. Beta
ADOLESCENT TV VIEWING								
1 low	97	-.30	-.28	-.29	43	-.18		-.08
2 medium	85	.05	.04	.05	41	-.09		-.08
3 high	83	.30	.29	.29	36	.32		.19
			.18	.17			.18	.11
ADOLESCENT TV RELATIONS								
1 low	63	.02	.13	.16	61	.14		.07
2 medium	103	.03	.10	.10	33	-.13		-.09
3 high	99	-.04	-.18	-.21	26	-.15		-.06
			.03	.10			.12	.08
ADOLESCENT TV PREFERENCES								
1 low	117	-.03	-.10	-.12	63	.16		.09
2 medium	67	-.00	.01	.00	20	.25		.21
3 high	81	.04	.14	.18	37	-.41		-.27
			.02	.07			.23	.16
SOCIAL CLASS								
1	35	-.45	-.40	-.35	9	-.76		-.50
2	63	-.32	-.29	-.31	21	-.27		-.02
3	33	-.18	-.17	-.10	16	.04		.31
4	49	.15	.11	.09	28	-.11		-.16
5	85	.40	.39	.36	46	.33		.10
			.24	.22			.27	.21
MULTIPLE R SQUARED			.088	.109				.178
MULTIPLE R			.297	.330				.422

tations. The main difference, however, between the dream job choices and the real job expectations is the influences that the TV program preferences exert on the real job expectations of the older adolescents. While the degree of involvement in the content consumed was the most powerful factor explaining the fifteen year old adolescents' dreams about their occupational activities the type of content preferred exerts the strongest influences on their real job expectations. Fifteen year old adolescents preferring informative TV program types are more inclined to expect high social class future occupation than are their counterparts who prefer a more fictive TV program menu.

All in all, the time spent watching TV affects both real and dream job choices. In the former case it reinforces low social class occupational choices, in the latter case it reinforces high social class choices. Of the two remaining TV use variables, the TV relations are most operative when the subject matter is the adolescents' dreams or longings about the future, while the TV preferences, on the other hand, have more bearing on the real job choices. It could therefore be said that heavy TV viewing reduces the future aspirations of the adolescents while preferences for informative TV content reinforces these aspirations. Finally, as with the dream job choices, social class is linearly related to the real job expectation only in the eleven year old sample, where a moderately strong relationship suggests that young adolescents' real job expectations fall in line with the occupational status of their parents.

7.4.4 Mass Media Information and Future Occupational Choices

In this section we turn to the adolescents' reports on the informational sources of their future occupational choices. The aspect analyzed here will be whether in-

formation is sought from the mass media or not. Table 7.7 presents the correlations (Pearson's r) between information obtained from mass media and the adolescents' real and dream job choices, with age and social class held constant. From the table it is evident that information obtained from the mass media consistently reinforces higher social class occupational choices than is the case for information obtained from other sources than the mass media (i.e. school, personal contacts etc). These results hold true for both the real and dream job dimensions for all age groups and social classes.

For the younger adolescents information obtained from the mass media affects both the working and middle class adolescents dream job choices rather strongly, while the strength of the relationships decreases, as expected, when we turn to their real job choices. Middle class adolescents real job choices are more strongly influenced by mass media information than is the case for their working class counterparts.

The correlation pattern changes considerably as we move to examine the older adolescents' data. The only significant correlation for the older adolescent sample is a rather strong negative correlation indicating working class adolescents dream job choices to be affected even more strongly by mass media information sources than was the case for the younger adolescents. These results indicate the same implication as demonstrated before: working class adolescents behave in much the same way at the first years of the formal operational stage as at the concrete operational stage, while the middle class adolescents have undergone considerable changes between these two age points.

Table 7.7 Correlations (Pearson's r) between mass media information and social class of future job choices by age and social class

	Dream Job Choices	Real Job Choices
5th grade:		
Working class (N=207)	-.30	-.15
Middle class (N=167)	-.30	-.23
9th grade:		
Working class (N=95)	-.41	-.16
Middle class (N=65)	-.16	-.15

7.5 Cultivation: Adolescents' Social Perception and World View

7.5.1 Introductory Remarks

The cultivation theories of Gerbner and his colleagues have aroused lively interest in many quarters. The analyses of the Gerbner group has been duplicated more or less precisely in countries such as Great Britain (Wober 1978), Canada (Doob and MacDonald 1979), and Australia (Hawkins and Pingree 1980). The reasons for this extensive interest are many, both theoretical and methodological. Theoretically, the cultivation thesis takes account of the importance of social structures and economic resources in an explicit, almost Marxian fashion seldom found in American communication research. Methodologically, the cultivation approach offers a coherent battery of measurement tools intended to assess the effects of television on the viewers' conceptions of reality. In accordance with the effects tradition the cultivation thesis assumes the 'amount of exposure' to be an important indicator of the

strength of televisions' contributions to people's conceptions about their environment.

"We have found that amount of exposure to television is an important indicator of the strength of its contributions to ways of thinking and acting. For heavy viewers, television virtually monopolizes and subsumes other sources of information, ideas, and consciousness. Thus, we have suggested that the more time one spends 'living' in the world of television, the more likely one is to report perceptions of social reality which can be traced to (or are congruent with) television's most persistent representations of life and society". (Gerbner et al 1980:14)

Moving beyond this one-dimensional account of people's TV use, in accordance with our combined 'uses and effects' framework, we will attend also to the more 'active' aspects of the adolescents' media use measured by their TV preferences and degree of involvement in the content consumed. Not only heavy TV viewing, but also preferences for fictive TV programs and, especially, heavy involvement in the content consumed are held to cultivate images of reality in accordance with television's representation of society.

The methodological aspects of Gerbner's approach, however, are the ones that have attracted most criticism. Firstly, the measurements are criticized for being built on simplistic, often ambiguous questions, from which far-reaching theoretical conclusions are drawn (Wober 1978 and Hirsch 1980). Secondly, the statistical analysis has been criticized for being unsophisticated, not using multiple controls (Hughes 1980 and Hirsch 1980). When reanalyzing the data used by Gerbner and his group these critics have found the relationships that exist between television viewing and the different measurements of social conceptions used by Gerbner et al to be severely diminished by multiple controls.

In the remainder of this chapter some aspects of Gerbner's cultivation measurements will be tested on the sample of our Swedish adolescents. The first aim of this analysis will be to examine how the 'indepth' TV use measurements (TV preferences and TV relations) stand up to the exposure measurements of TV viewing in affecting the adolescents' social perceptions in a linear manner. The second aim is to test how multiple controlling for social class and different socialization variables affect the zero-order relationships obtained.

7.5.2 Operationalizations

The adolescents' perceptions of social reality are measured with two indices built on questions developed by Gerbner and his group. The first index labelled 'TV-violence', measures the adolescents' perception of violence in society. The index consist of three questions where the adolescents can choose between two alternatives, a 'television answer' overrepresenting the actual amount of violence in society, and an alternative underrepresenting the actual amount of violence. The questions are as follows:

Some people say that the rate of crime is very high in Sweden. Others say that it isn't so bad. What do you think?

- a) How many murders do you think there are in Sweden in a year?

100 murders a year

500 murders a year

- b) How many burglaries do you think there are in Sweden in one year?

50 000 burglaries a year

200 000 burglaries a year

- c) How many robberies do you think there are in Sweden in one year?

1 000 robberies a year

5 000 robberies a year

The second index, labelled 'TV-society', consists of two questions having a television and non-television alternative for the size of different occupational groups in society, professional groups being overrepresented and blue collar occupations underrepresented in TV. The questions are as follows:

Think of all the people in Sweden who work. How many of them do you think work as:

- a) Doctors, lawyers, professors, directors and other such professions?

about 1 in a 100

about 20 in a 100

- b) Industrial workers, farm workers, transport workers and other such workers?

about 30 in a 100

about 70 in a 100

Finally a single question variable, labelled 'TV-USA', was used to measure aspects of the adolescents' 'world-view', 'TV-answer' being an overestimation of USA's population and the 'non-television' answer being an underestimation. The question is as follows:

About how many of all people in the world do you think live in the USA?

about 3 in a 100

about 9 in a 100

7.5.3 Cultivation and Different Socialization Agents

We start our empirical analysis of the cultivation variables with Gerbner's most central dimension, that of perceived violence in society. Table 7.8 presents the effects exerted by the TV use variables, as well as social class, on the TV-violence index, using the family socialization and peer relation variables as co-variates. From the table it is evident that in the case of the younger adolescents none of the TV use variables affect their perception of violence in society. For the older adolescents, however, involvement with the TV content consumed exerts a linear, although weak, effect on their perception of violence. High involvement in the TV content consumed leads to a perception of violence in society more in accordance with the portrayals of violence presented on the television screen than in accordance with real life. The amount of time spent watching TV, on the other hand, does not relate in any systematic way to the adolescents' perception of violence, contrary to the cultivation thesis. It is important to notice that, while the exposure measurement used by Gerbner et al as the all important independent variable of television use fails to explain 'TV-answers' in the case of the violence perception, the TV relations are - here, as in the case of the adolescents' occupational choices analyzed in section 7.4 - more successful in that respect. These results further demonstrate the importance of a combined 'uses and effects' model for mass communication research as advocated in chapter 4. To explore successfully the subtle processes of long term media consequences it is certainly not enough to examine 'how much'. We also have to pay attention to 'in what way' people attend to media consumption.

Turning to the second social perception index, that of 'TV-society', presented in Table 7.9, we see that, just as in the case of 'TV-violence', the time spent watching TV does not cultivate the expected linear effects

on the adolescents' perception of the division of labour in society. This holds true for both age groups. As with the 'TV-violence' measurement there are, however, in the case of the older adolescents, other aspects of the adolescents' media use that contribute more systematically to the explanation of their perception of social reality. While the older adolescents' involvement in the TV content consumed was the most powerful predictor of their perception of violence in society, the TV program preferences cultivate their perception of the division of labour in society most strongly among the three TV use variables used in our analysis. The effects of the older adolescents' TV program preferences, while only moderately strong, are linear and withstand the controls rather well. The effects go in the anticipated direction. Preferences for fictive TV content cultivate an outlook of society in which the professional occupations are proportionally overestimated as is the case in most fictional TV programs, while the proportion of blue collar occupations is underestimated. Preferences for informative TV programs, on the other hand, cultivate an outlook of the division of labour in society more in accordance with social reality than with the world of television. That is, used in a certain way, TV may have effects diagonally opposed to those hypothesized by Gerbner and his group. For the younger adolescents social class has a weak but linear effect on their social perception, indicating that working class adolescents answer more often in terms of the images portrayed by television than do the middle class adolescents.

The third cultivation variable, labelled 'TV-USA', is a single item measuring the adolescents' perception of the relative size of the population of USA. Although not used by Gerbner et al this item is constructed with the same techniques. The adolescents could choose between two alternatives, one, the 'TV-answer', overestimating the population of USA, the other underestimating it. The underlying assumption is that as TV pro-

Table 7.8

MCA of TV-violence by adolescent TV viewing, relations, preferences and social class with family socialization and peer relations. Separately for 5:th and 9:th grade

	5:th grade Grand mean = 3.93					9:th grade Grand mean = 3.90				
Variable	N	Unadj.	Eta	Adj. for indep. Beta	Adj. for indep. Beta + covar.	N	Unadj.	Eta	Adj. for indep. Beta	Adj. for indep. Beta + covar.
ADOLESCENT TV VIEWING										
1 low	108	-.02		-.05	-.02	45	.03		.02	.05
2 medium	98	.02		.03	.02	43	-.09		-.11	-.12
3 high	90	.00		.03	.00	44	.05		.09	.06
			.02					.07		
				.04	.02				.10	.11
ADOLESCENT TV RELATIONS										
1 low	70	.04		.01	.04	65	-.13		-.11	-.12
2 medium	114	-.05		-.05	-.05	39	.02		.02	.03
3 high	112	.03		.04	.02	28	.28		.24	.24
			.04		.04			.19		
									.17	.17
ADOLESCENT TV PREFERENCES										
1 low	129	-.03		-.02	-.03	69	-.03		-.03	-.03
2 medium	71	-.01		-.02	-.03	22	.01		.05	.08
3 high	96	.05		.04	.06	41	.05		.02	.01
			.04		.04			.04		
				.03					.03	.05
SOCIAL CLASS										
1	49	.07		.08	.10	11	.10		.07	.06
2	63	.07		.08	.08	26	.14		.14	.10
3	35	.19		.19	.22	17	.04		.02	-.03
4	63	-.04		-.05	-.05	30	.17		.16	.18
5	86	-.14		-.15	-.17	48	-.21		-.20	-.17
			.12		.12			.20		
					.14				.19	.17
MULTIPLE R SQUARED				.018	.029				.078	.103
MULTIPLE R				.132	.171				.279	.320

family socialization and peer relations. Separately for 5:th and 9:th grade

Variable	5:th grade				9:th grade			
	Grand mean = .99				Grand mean = .63			
	N	Unadj.	Eta	Adj.for indep. Beta +covar. Beta	N	Unadj.	Eta	Adj.for indep. Beta +covar. Beta
ADOLESCENT TV VIEWING								
1 low	108	.07		.12	45	-.07		-.05
2 medium	98	-.16		-.17	43	-.02		-.01
3 high	90	.09		.04	44	.10		.04
			.16	.16			.12	.07
								.06
ADOLESCENT TV RELATIONS								
1 low	70	-.15		-.11	65	.00		-.03
2 medium	114	-.01		.00	39	-.04		-.01
3 high	112	.10		.07	28	.05		.08
			.13	.11			.05	.07
								.07
ADOLESCENT TV PREFERENCES								
1 low	129	.05		.03	69	.10		.09
2 medium	71	-.05		-.03	22	.01		.00
3 high	96	-.03		-.02	41	-.17		-.15
			.06	.04			.19	.17
								.17
SOCIAL CLASS								
1	49	-.21		-.15	11	-.08		-.04
2	63	-.07		-.06	26	-.09		-.08
3	35	.04		.08	17	-.04		-.02
4	63	.01		.00	30	.04		.02
5	86	.15		.10	48	.06		.06
			.17	.16			.10	.07
								.08
MULTIPLE R SQUARED				.066				.052
MULTIPLE R				.258				.227
				.093				.081
				.305				.285

Table 7.10

MCA of TV-USA by adolescent TV viewing, relations, preferences and social class with family socialization and peer relations. Separately for 5:th and 9:th grade

Variable	5:th grade				9:th grade			
	Grand mean = 1.60				Grand mean = 1.39			
	N	Unadj.	Eta	Adj.for indep. Beta	N	Unadj.	Eta	Adj.fbr indep. Beta +covar. Beta
ADOLESCENT TV VIEWING	108	-.09	-.04	-.04	45	-.08		
1low	98	-.00	.01	.01	43	.00	-.07	-.08
2medium	90	.11	.04	.03	44	.08	.01	.01
3high							.06	.07
			.16	.07			.14	.11
				.06				.12
ADOLESCENT TV RELATIONS	70	-.09	-.05	-.05	65	-.01	-.02	-.02
1low	114	-.04	-.04	-.04	39	-.03	-.03	-.02
2medium	112	.10	.07	.07	28	.07	.08	.08
3high						.08	.09	.08
			.16	.12				
				.12				
ADOLESCENT TV PREFERENCES	129	.03	.01	.01	69	.10	.09	.09
1low	71	-.03	-.03	-.03	22	-.21	-.24	-.24
2medium	96	-.02	.01	.01	41	-.05	-.02	-.02
3high						.24	.24	.24*
			.06	.04				
				.04				
SOCIAL CLASS	49	-.22	-.19	-.20	11	-.12	-.12	-.15
1	63	-.03	-.02	-.02	26	-.16	-.17	-.19
2	35	-.12	-.11	-.10	17	-.10	-.09	-.09
3	63	.13	.11	.11	30	.11	.10	.11
4	86	.10	.08	.09	48	.09	.09	.10
5				**				
		.26	.23	.23		.23	.23	.26
MULTIPLE R SQUARED			.090	.095			.130	.142
MULTIPLE R			.300	.308			.360	.377

grams from USA dominate the category of imported programs in Swedish TV, adolescents heavily engaged in TV fare would overestimate the population of USA more often than those who are only light TV users. In table 7.10 the 'TV-USA' variable is analyzed. We see from the table that both amount of time spent watching TV and involvement with the TV content consumed is related linearly, in the expected direction, to the 'TV-USA' variable. Heavy TV viewing as well as high involvement with the consumed TV content cultivates the TV view of USA's population. All these relationships are, however, weak indeed and are still further weakened by the controlling procedures. For the younger adolescents, the involvement dimension of their TV use, withstanding better the controls, seems to be a more independent predictor of the adolescents' perception of the USA than is the time spent watching TV, while for the older adolescents the time dimension, withstanding controls well, is a more independent predictor than was the case for the younger adolescents. Also, for the older adolescents, although moderately strongly related to the 'TV-USA' variable, the program preferences do not exert linear effects on this particular conception of reality. The interpretation of this curvilinear relationship is therefore uncertain. Finally, table 7.10 indicates that social class exerts moderately strong and linear effects on the adolescents' perception of USA, with working class adolescents answering more often in terms of the world of TV than do middle class adolescents.

All in all, the amount of time spent watching TV is only weakly and/or curvilinearly related to the cultivation measurements. One reason for these results could be, as stated by Gerbner et al (1981), that analysis of overall effects fails to grasp the importance of differential patterns within subgroups. Within different subgroups the relationships might well be linear and non-spurious, while the effects cancel each other out in the overall relationship. In our data,

we have obtained some results, to be published later, in support of this reasoning. When we broke down our material according to middle and working class configurations we obtained linear cultivation effects for the working class adolescents not found in the initial overall analysis.

Be this as it may, we are more concerned in the present work with other aspects of the cultivation thesis that we feel needs reconsiderations. Is it possible that the meagre results in the case of the exposure variable is an indication of its failure to capture important features of the adolescents' TV use? As we saw in the empirical analyses in the present section the measurement of the 'superficial' exposure variable is not the only dimension of the adolescents' TV use. The more 'indepth' dimensions of preferences and involvement are demonstrated to contribute to our understanding of TV's cultivation effects on the adolescents social perceptions. Drawing on these results, and in accordance with our 'uses and effects' theoretical frame of reference, we feel that if the cultivation thesis, which we find important indeed, is to be developed further, more attention should be paid to the 'active' nature of the audience. This development should go hand in hand with the increased emphasis on the social milieu of the TV viewer that is now, fortunately, being incorporated into the cultivation analysis (Gross and Morgan, in press).

The involvement dimension seems to us an especially potent candidate for the cultivation analysis, being in harmony with the main theme of the cultivation thesis, i e, that the people most heavily engaged in the TV medium are the ones most vulnerable to its cultivation effects. One inviting possibility, as discussed in section 7.4.1, when seeking to penetrate deeper into the cultivation effects of television, could be to construct a typology consisting of the exposure and the involvement dimensions as recently advocated by

Windahl (1980). In short, what we are proposing is a merger of the effects and the uses and gratification approaches inside the cultivation analysis. While we have found it fruitful to include in our analysis elements from the effects tradition, we would be surprised if the cultivation analysis did not gain from the infusion of elements developed inside the uses and gratification approach.

8. THE SOCIAL ORIGINS AND EFFECTS OF ADOLESCENT'S TV-USE: TWO STRUCTURAL EQUATION MODELS

In this chapter two structural equation models, using the LISREL computer program, will be estimated, for 5th graders (eleven years old), and 9th graders (fifteen years old), respectively. The models will specify the structural relations between the various variables being studied. We are most interested in the strength or relative magnitude of the coefficients within the two age models. The final structural models will be compared with the hypothesized causal structure of the conceptual model presented in chapter 4, thereby testing its explanatory qualities.

8.1 Variables

Preceding the LISREL estimations, most of the variables have been put to a scaling process. Factor analytic procedures have been used to construct empirically distinct variables. These and other index building methods used in the Media Panel material analyzed here are described in the preceding chapters, where the study's variables and their operationalizations are presented.

Altogether fifteen variables have been chosen to make up the structural equation models. The choice was based on the expected theoretical importance of the variables in question. Of these, two are background or exogenous variables (Box A), nine are used as intervening or interactional variables (Boxes B+C+D) and four are dependent or endogenous variables (Box E). The variables are listed in table 8.1.

Table 8.1 Overview of variables used in the structural equation models

Exogenous variables (Box A):

- (1) Social class: The Parents' combined occupational status
- (2) Sex

Intervening variables (Boxes B+C+D):

- I. Broad socialization norms:
Chaffee's family communication patterns
- (3) Socio-orientation
- (4) Concept-orientation
- II. Media specific socialization norms:
Brown's parental attitudes to TV and to child's TV use
- (7) Positive attitude to child's TV use
- (6) Addictive attitude to child's TV use

Box C (Social activities and peer relations):

- (8) Social activities (sports, hobbies, clubs etc)
- (9) Peer relations (interaction with peers)

Box D (TV use):

- (5) TV relations (identification with TV content consumed)
- (10) TV consumption
- (11) TV preferences (relative preferences for informative TV program types)

Endogenous variables (Box E):

- (12) Gerbner's TV images of different occupational groups in society
- (13) Knowledge of news events (number of mentioned events within and outside Sweden)
- (14) Dream job in future
- (15) Real job in future

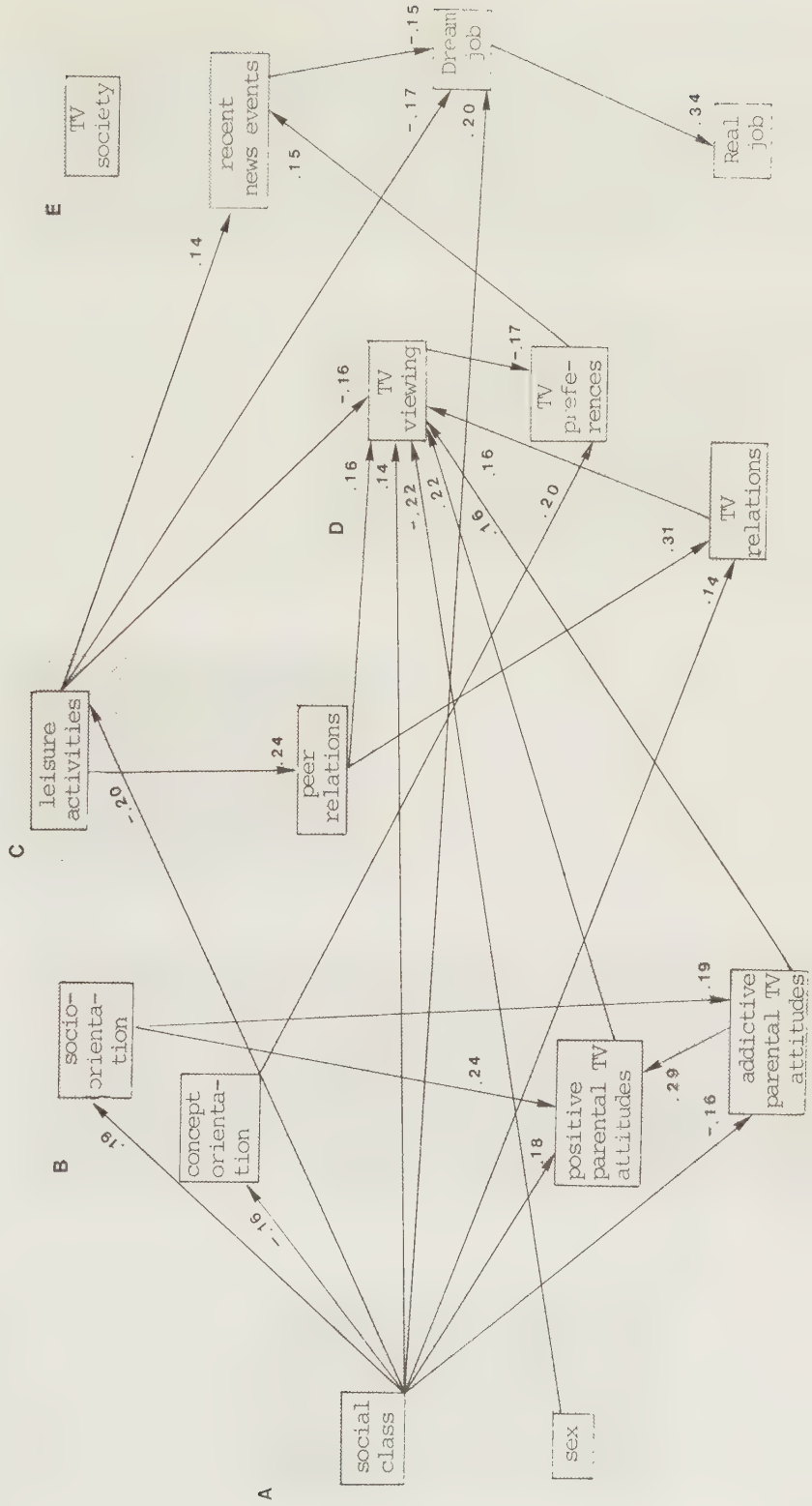
8.2 The 5th Grade (age eleven years) Model

Table 8.2 presents the zero-order correlation matrix for the variables estimated in the structural equation model. These correlations are used as raw input for the LISREL model for the 5th grade sample. Figure 8.1 presents the final LISREL model for the 5th grade sample. Only statistically significant (.10 or greater) parameters are outlined in the figure. In arriving at these results we followed the sequential procedure suggested by Sörbom (1975). First the program was specified in accordance with the causal order of the conceptual model. The program detects those parts of the model which have been misspecified. To improve the model, parameters that were previously fixed at zero and obtained large first order partial derivatives, were in the next estimation of the model allowed to be freely estimated. If the freeing-up resulted in a sizable decrease in the value of χ^2 in relation to the differences in degree of freedom the fit of the model is improved (Jöreskog and Sörbom 1978). This process continued until new freeing-up produced nonsignificant parameter estimates. The final model resulted in a reasonable fit of the structural equation model to the 5th grade input data matrix. The goodness-of-fit test produced a chi-square (χ^2) value of 72.6126 with 75 degrees of freedom and a probability (p) of .5568. The technical implications of the LISREL model are described in section 1.2 on statistical techniques. Table 8.3 lists the residuals for the intervening and endogenous variables estimated.

8.2.1 Overall Implications

The overall structure of the structural equation model is in reasonable accordance with our conceptual model and its causal implications. Social class exerts significant direct and/or indirect effects on most of the interactional and dependent variables, and these effects

Figure 8.1 LISREL model for the 5th grade sample. Standardized parameter estimates



for the most part run in the expected direction. Most striking, however, is the absence of effects exerted by the TV use variables on the four consequence variables (Box E) in the model. Only one relatively weak path is significantly established between these blocks of variables. On the whole, although significant, most of the obtained paths are only of weak or moderate strength. This fact could to some degree be an effect of the age factor since we are here dealing with eleven year old children and their parents, and as discussed in chapter 3, on the theoretical ground of cognitive development, the strength of the effects anticipated in the model are expected to increase as we move to analyze the older adolescents of fifteen years of age. This reasoning will be developed further, later on, when comparing the 5th and 9th grade models.

Turning now to specific paths in the model, we will discuss them in the following order: First, the origins of the family socialization variables, the family communication patterns and parental TV attitudes, are examined (Box B). Then the adolescents' extra' family relations (Box C). Later, we turn to the important TV use variables (Box D). Finally, the origins of the consequence variables are assessed (Box E).

8.2.2 Family Socialization (Box B)

Family communication patterns: Looking first at the most important background or exogenous variable, social class, most of our theoretical expectations are confirmed. In the case of family socialization (Chaffee's general or broad socialization norms of family communication patterns, and Brown's more media specific socialization norms) all the expected results are demonstrated. Social class has a moderately strong positive effect on socio-oriented family communication (+.19), indicating that working class parents score higher on this family communication orientation than do middle

class parents. On the other hand, concept-orientation is negatively, although more weakly, related to social class ($-.16$). The prediction that middle class parents are more inclined to stress concept-oriented family communication patterns in interaction with their children already at the age of eleven is at least partly confirmed.

Parental TV attitudes: Turning to the parental TV attitudes, we see further that working class parents tend to be more positive to their children's TV use than do middle class parents ($+.18$), and they are also less afraid of addiction effects of TV use on their children than the middle class parents ($-.16$). Social class exerts also indirect effects on the parental media attitudes through the more general norms of family communication pattern. Parents with a high socio-orientation tend to be high on positive TV attitudes ($+.24$). Somewhat surprisingly, the same is the case for the addictive attitude ($+.19$), although the relationship is somewhat weaker.

Summing up, the causal chain of social class effects on family socialization norms, as well as being a direct one, operates through the more general socialization norms to the more specific norms.

8.2.3 Adolescents' 'Extra' Family Relations (Box C)

Leisure activities: Of the adolescents' extra family activities, here their peer relations and social activities (Box C), the latter show a significant negative relation with social class ($-.20$). This result adds strength to the predicted, and often observed phenomenon, that working class adolescents have fewer leisure opportunities than middle class adolescents. Rather surprisingly however, the socialization norms of the family seem not to add any explanatory value to adolescents' leisure activities. There are no significant

paths between these variables in the model. Adolescents' leisure activities could therefore be interpreted to be more a question of material resources than of attitudes and mental states.

Peer relations: The number of peer relations is not significantly related to any social class or socialization variables. At the age of eleven social structures have, not yet at least, become a significant factor in children's personal interaction with other children of the same age. There is, on the other hand, a positive relation between leisure activities and peer relations (+.24).

8.2.4 Adolescents' TV Use (Box D)

For the three TV use variables, TV-relations, TV consumption and TV preferences (Box D), when performing as dependent variables, the 5th grade structural equation model partly confirms the causal statements of the conceptual model.

TV relations: The TV relation variable, measuring degree of involvement with the content consumed, is mostly explained by the number of peer relations exercised by the child. There is a rather strong positive path between these variables (+.31). This result could indicate that children at this age have relatively little problem in changing between real life and fiction. Children with positive experiences in making contact with other children seem to transfer these experiences onto the world of television, and therefore to identify more easily with persons of a fictive character than do children with more constrained peer relations. Middle class children are somewhat more restrictive in their relations with TV persons than are working class children (+.14).

TV consumption: The TV consumption variable is the best

explained one in the whole 5th grade structural equation model (residuals .736). The eleven year adolescents' amount of TV viewing is moderately related to the social position of their family. As predicted, social class affects TV consumption positively; although the path is not a very strong one (+.14). Already at the age of eleven, working class children are significantly heavier TV consumers than children born into middle class families. Contrary to our hypothesis, however, the socialization norms measured by the family communication pattern variables do not figure as a direct cause use for TV consumption in the age eleven years model. Seemingly, when explaining actual media behaviour, in this case TV consumption, the broad and general family communication socialization norms need to be redefined. Considerably more specific norms and attitude measurements must be introduced when seeking explanations of behavioural matters of media use. In favour of this interpretation is the fact that Brown's parental TV attitude scales fare much better in explaining adolescents' TV consumption than do Chaffee's family communication patterns. The parents' scores on both the positive and addictive scales are positively related to adolescents' TV consumption. As hypothesized, children having parents that are positively inclined to children watching television are likely to watch more TV than children with parents with a more negative attitude (+.22). Rather more surprisingly, the same positive effects is true for children having parents believing that TV could have an addictive effects on their children (+.16). This relation, in turn, could be as much a consequence of the childrens' amount of TV viewing as of the parental attitude. Thus it is a demonstration of one of the historic dilemmas of non-experimental analysis, the uses and gratification approach included, namely the danger of tautological explanations. On the whole, being significantly related to social class and socio-orientation, the parental TV attitude scales operate as efficient intervening variables between TV consumption and the family's social class position and broad socialization norms.

Two other factors complement the explanation of TV consumption in the model; on one hand the children's extra-family activities of peer relations and leisure activities (i.e. Box C in the conceptual model), and on the other hand, sex. Both peer relations and leisure activities exert a significant effect on TV consumption. The number of leisure activities practised by the children is negatively related to their TV consumption ($-.16$). Logically, children with a rich leisure activities register are less dependent on TV viewing than those with few leisure activities. Bear also in mind that the opportunities to exercise leisure activities have been demonstrated to be class related, allowing for some indirect effects on TV consumption. Finally, sex is a moderately strong explanatory factor for eleven year olds' TV consumption ($-.22$), with boys heavier TV viewers than girls. This effect is, incidently, the only significant effect of sex demonstrated in the entire 5th grade model.

TV relations and TV consumption are significantly correlated ($+.16$). Children high on parasocial interaction with the TV content consumed are also likely to be heavy TV viewers.

TV program preferences: The only social variable exerting a significant effect on the information preference index is the concept-orientation. Very much in line with our differential socialization hypothesis, living in a concept-orientated family affects positively the children's disposition to prefer informative TV content ($+.20$). In this connection two facts are important to note. First, there is no direct social class effect; social class operates here solely through the differential communication climate in the family. Second, in contrast to what happened with the TV consumption variable, the specific parental TV attitude scales do not affect the children's TV preferences. The only other significant predictor of the 5th graders' TV preferences is the amount of time spent in front of the TV

screen. TV consumption has a negative effect on TV preferences ($-.17$), indicating that heavy TV viewers prefer fantasy or non-informative TV programs more strongly than do light TV viewers.

Taken together, the social origins of the TV use variables in the model are - as expected - complex and subtle. The result of most theoretical value is the difference in the causal structure of the three TV use variables, TV preference, TV consumption and TV relations. For the preferences, social origins are to be sought in broad structures of family communication patterns, while TV consumption behaviour originates more from parental media specific norms and attitudes as well as direct from the family's social class position. The origins of the childrens' TV relations are on the other hand not so much to be found in the family, they are, rather, to be found in the relations the children have with their peers. All in all, differential socialization can, already at the age of eleven, be shown to play a significant part in childrens' TV fare.

8.2.5 The Consequence Variables (Box E)

We now turn to the four dependent or consequence variables of the structural equation model (Box E: Gerbner's TV images of occupational groups, knowledge of news events and dream and real job in future). The most striking finding is the almost complete lack of significant paths between the TV use variables and the consequence variables. The only effect demonstrated is a positive, although weak, path from the TV preference variable to the consequence variable measuring knowledge of recent news events ($+.15$). Preferring informative TV content heightens the children's standard of knowledge. The knowledge variable is also causally linked to leisure activities, with children high on leisure activities being somewhat more knowledgeable than those lower on the leisure activities variable ($+.14$).

On the whole, all the consequence variables are poorly explained in the eleven year model. Both Gerbner's TV images and the real job variable are completely unexplained in the model. In both cases the reason could be lack of topicality. According to cognitive development theories, most eleven year old children are still at the concrete operational stage. It may well be, therefore, that abstract questions about social reality and distant future should not be expected to be causally linked with social structural or media use variables.

Dream job orientation, however, is significantly related to social class and leisure activities. This could indicate that at the age of eleven fantasy plays a dominant part in the children's lives. Social class has a moderately strong positive effect on the dream job orientation (+.20). Middle class children choose middle class jobs significantly more often than do working class children. This fact, presumably, is an indication of realism on the behalf of the working class children.

In this section, many questions have been raised on the effects of cognitive development (i.e. age) on the causal structure of social origins and effects of adolescents' TV use. We turn now to the structural equation model found best fitting for the fifteen year old sample.

8.3 The Ninth Grade (age fifteen years) Model

We begin by specifying the model. Table 8.2 presents the zero order correlation matrix used as input for the LISREL estimation process. Figure 8.2 presents the final LISREL model for the 9th grade sample. The fit of the model to the data is quite good: $\chi^2 = 36.8466$, $df = 71$ and $p = .9997$. Table 8.3 offers the residuals for the variables estimated in the model.

8.3.1 Overall Implications

When we compare the final 9th grade structural equation model with the 5th grade model analyzed previously, the first thing to be noticed is the considerable increase in the number of significant paths, and secondly the generally higher magnitude of the paths presented. The 9th grade model allows, therefore, for a more liberal interpretation than the 5th grade mode. These facts, of course, make the model even more complex than the previous one, but they also make it a more interesting undertaking to compare the structural equation model with the conceptual model and its causal implications. Especially noteworthy are the number of paths between TV use and the consequence variable blocks demonstrated in the model. Turning to the specific paths of the 9th grade model, we shall discuss them in the same order as with the 5th grade model: First, family socialization (Box B), then 'extra' family relations (Box C), later, TV use (Box D) and lastly, the consequence variables (Box E).

8.3.2 Family Socialization (Box B)

Family communication patterns: We find that social class has a sizable effect on the family communication patterns. The effects are in the expected direction, both for the socio and concept orientations. The strength of the positive effect on the socio-orientation is especially noteworthy (+.39). The socio-orientation is the more usual working class family communication pattern. On the other hand, the concept-oriented family communication pattern, which is negatively related to social class (-.21), is the more usual form of family communication in middle class homes. The increased strength of social class effects on the family communication patterns is in line with the hypothesized interaction between differential socialization and cognitive development. As the adolescents reach the formal opera-

tional stage, becoming more independent members in the family structure, there is a greater opportunity, both for parents and adolescents to form a specific communication orientation.

Parental TV attitudes: While the social class influences on family communication increase, they disappear in the case of parental TV attitudes. Within the socialization norms of the family, the socio-orientation affects positively both the parental TV attitude scales positive (+.16) and addictive (+.27). Although somewhat lower, these are exactly the same relations as obtained in the 5th grade model.

8.3.3 Adolescents' 'Extra' Family Relations (Box C)

As hypothesized, the effects of social class and family socialization norms on the adolescents' extra family activities increase substantially from the 5th to the 9th grade model, with all the effects going in the hypothesized directions. In the 9th grade model the negative effects of social class on leisure activities are considerably stronger than for the younger children (-.31). As they grow older, and as their leisure activities grow more diversified and expensive, the adolescents become more directly dependent on the material resources of their parents. In the 9th grade model social class shows a significant, moderately strong positive effect on peer relation (+.21) not found in the 5th grade model. While middle class adolescents are more engaged in organized activities, working class adolescents spend more time on informal interactions with their peers. These results are well in accordance with former research on different social class behaviour and demonstrate forcefully the overriding importance of social structural factors on almost all aspects of adolescents' life. Even when the adolescents are practising extra family activities they take with them the social and material resources of their parents. This is further

demonstrated by the significant positive causal links between concept family communication orientation and both leisure activities (+.15) and peer relations (+.15); these links are not found for the 5th grade sample.

8.3.4 Adolescents' TV Use (Box D)

Overall implications: Moving to the different aspects of media use estimated in the model - TV viewing, TV relation and TV preferences - two different phenomena are evident. First, social class effects on adolescents' TV use have increased sizably from the 5th to the 9th grade model, while the effects of family socialization norms have decreased. As we move from pre-adolescence to middle adolescence the general structural elements of the family's social position seem to become more important than more specific contents of that structure, such as socialization norms. Second, and surprising, the effects of peer relations and leisure activities have not increased as the adolescents grow older. On the contrary, the small effects found for peer relations on TV use variables in the 5th grade model disappear in the 9th grade model. These results are undoubtedly the structural equation model's most severe falsification of the conceptual model's causal implications. In the model, extra family activities, especially peer relations, simply do not take over from the family as effective predictors of media uses and effects as the adolescents grow older.

Looking at the specific paths affecting the TV use variables, we find considerable differences between the causal structure of the younger and the older models. Let us start with TV viewing.

TV viewing: The most striking difference in connection with the 9th graders' TV consumption, as compared to that of the 5th graders, is the huge increase in the effects of social class. Social class exerts a strong

positive effect on the amount of time spent viewing TV (+.34). At the age of fifteen, middle class adolescents have decreased their TV consumption dramatically more than have working class adolescents from the time they were eleven. Bear in mind here the increase in social class effects on leisure activities discussed earlier. This result is very much in support of the theorized combined effects of social class and cognitive development in the conceptual model used in this study.

TV preferences: For the TV preference scale, two changes from the age eleven to the age fifteen models are quite evident. First, the effects of the concept variable found in the model for the younger sample have disappeared, while on the other hand, new significant negative social class effects are registered in the older sample (-.16). In support of the differential socialization perspective, fifteen year old middle class adolescents are more inclined to prefer informative TV programs than are working class adolescents of the same age. Secondly, there is a negative path from the addictive parental TV attitude scale to the adolescents' TV preferences (-.17).

TV relations: There are no variables that exert significant effects on the 9th graders relations with the content consumed. The strong relation with peer activities demonstrated in the age eleven model has disappeared. A possible explanation could be that the older adolescents are more intellectually constrained to move between reality and fantasy personal relationships than the younger children.

The positive effect of TV relation on TV consumption found in the 5th grade model is intensified in the 9th grade model (+.26). Adolescents with high interaction with the TV content consumed are heavier TV viewers than those with low interaction. This result invites a possible functional explanation. TV viewing is a more rewarding or satisfying undertaking for those viewing

'actively' (in the sense of para-social interaction) than for adolescents with a more 'passive' relation to the TV content consumed.

Beside the effects on TV consumption, the TV relations also affect some of the adolescents' consequence variables (to be discussed later). The functional variable measuring TV relations, therefore, adds to the explanatory value of the model, and as the TV relations are not causally linked to any social background variables, they operate uniquely in explaining adolescents' TV use and consequences. Theoretically, this indicates (at least on the basis of the present model), that we should not exclude functional explanations in favour of differential socialization approaches as some researchers have proposed (i.e. Elliott 1974). Rather, the combination of both seems inevitable if we are to advance in explaining adolescents' media use and consequences.

8.3.5 The Consequence Variables (Box E)

From a theoretical point of view, the causal structure shown by the consequence variables in the age fifteen years model is the most important part of the structural equation models analyzed here. These causal structures demonstrate considerable media effects. All the media use variables significantly affect one or more consequence variables. Another factor of interest is that the family communication patterns, together with the media variables, are the most persistent predictors of the adolescents' world view and societal perception variables. These are results that were not obtained in the 5th grade model where, as discussed earlier, the results yield a considerable prominence to the basic conceptual model (with the important qualification that the effects of the family and the mass media on the adolescents' world view and societal perception are relatively independent of each other). On the other hand, social class seems to work indirectly through both these agents.

Recent news events: The variable measuring the adolescents' knowledge of recent news events is positively related to both TV consumption and TV preferences. The TV preferences exert a moderately strong effect on the knowledge variable (+.22). As with the 5th grade model, only much stronger, preferences for informative TV content increases significantly the adolescents' knowledge of news events. The positive direct effects of TV consumption on the knowledge variables, although significant, is of considerably less magnitude (+.14) than the effects of TV preferences. Overall, amount of TV viewing seems to heighten the adolescents' level of knowledge, if only slightly, but as pointed out before, personal preferences are more effective than pure behaviour, the former implying more active learning and the latter a more passive way of learning.

Finally, the family communication's socio-orientation affects the knowledge variable negatively. There is a moderately strong path (-.24) indicating that adolescents from families stressing the socio-orientation have less knowledge about recent events than adolescents from families not stressing the socio-orientation.

Future job orientation: The causal structures of the two future job orientation variables are somewhat complex. Turning first to the dream job orientation we find that the expected influences from TV consumption are lacking. However, the expected significant effects from TV relations and family communication patterns are present. Adolescents from highly concept-oriented families dream of middle and high social class jobs to a greater extent than do adolescents from low concept-oriented families (-.23). Even more interesting, though, are the moderately strong negative effects from the TV relation variable (-.23), demonstrating a convincing example of media related effects. Adolescents engaged in a para-social relation with the world of television are more inclined to dream of high social class jobs in the future than are adolescents with low TV rela-

tions. Bear here in mind that the influences from other variables are controlled for in the model. In the case of the future reality job orientation, TV consumption (+.25) is the only significant explanatory factor.

Gerbner's TV images: When we examine the variable measuring Gerbner's TV images we find yet other important differences between the 5th and 9th grade models. In the 5th graders' model there are no significant paths linked to this variable. In the 9th graders' model, on the other hand, there are several significant paths outlined. Admittedly, the strength of the coefficients are not impressive but the consistency of the causal structure, in connection with the controls exercised by the model, adds up to, if not a direct support, at least a non-refutation of Gerbner's cultivation theory. This statement, of course, holds true only in the case of the dependent variable analyzed in the model.

Both TV use variables and family communication variables, as well as sex, are involved in explaining the adolescents' tendencies to estimate the size of different occupational groups in society more on the basis of their television images than on their real size. Of the TV use variables, TV consumption (+.14) and TV relations (+.14) are positively related to TV images of occupational groups. As predicted by the cultivation approach, the total amount of time spent watching TV cultivates significantly the biased TV view of occupational groups in favour of the professional groups and in disfavour of the blue collar groups.

The result that TV relations affect adolescents' social perception to the same degree as consumption, which in turn is dependent on the para-social relations, add theoretical qualifications to the cultivation theory. While both heavy TV viewing and high TV relations affect social perception, the model tells us that the most important explanation lies in the combination of these two. Adolescents with close TV relations who are

at the same time heavy TV viewers (these variables are significantly related, as we have discussed before) are the most likely victims of television cultivation processes.

The social origins of these particular social perceptions are to be found in the family communication patterns. Concept-orientation exerts a weak but significant negative effect on the adolescents' occupational images ($-.15$). Adolescents from high concept families choose significantly less often the TV answers than do adolescents from low concept-oriented families. Other aspects of the cultivation analysis, such as the violence index, are discussed in chapter 7.

8.4 Conclusions

Perhaps the single most important result from the structural equation model lies in the demonstration of complexity. Adolescent media use and its consequences are related to a network of different socialization agents exerting constantly changing effects according to the subject matter under study on each occasion. There are no short-cuts in revealing these patterns. Unfortunately, this complexity has all too often been neglected in the professional and public debate on the subject.

Table 8.2 Correlation matrixes used as raw inputs for the LISREL models: 5th grade matrix (N=248) above the diagonal, 9th grade matrix (N=111) below the diagonal

	social class	sex	socio orient.	concept orient.	positive TV attit.	addictive TV attit.	peer relat.	leisure activ. view.	TV pref.	TV relat. soc.	recent events	dream job	real job		
social class	1.00	-.01	.19	-.16	.26	-.12	.09	-.21	.26	-.20	.18	.07	-.16	.26	.25
sex	.11	1.00	-.06	-.04	-.05	-.04	-.08	-.02	-.24	.00	.05	.10	.02	.09	.01
socio orient.	.39	.00	1.00	-.10	.22	.16	.13	-.03	.14	-.09	.14	.10	-.01	.05	.04
concept orient.	-.21	.01	-.09	1.00	-.09	.02	-.08	.14	-.08	.25	-.15	-.12	.01	-.09	-.15
positive TV attit.	-.01	.06	.14	-.08	1.00	-.27	.08	-.12	.28	-.15	.11	.04	.02	.13	.07
addictive TV attit.	-.04	-.15	.22	-.03	-.08	1.00	.01	.07	.08	.04	.00	-.04	.05	-.03	-.05
peer relat.	.18	.02	.09	.11	-.05	-.11	1.00	.23	.22	-.13	.33	.08	-.08	.03	.02
leisure activ.	-.35	-.15	-.17	.22	-.15	.06	.05	1.00	-.15	.15	.08	-.10	.15	-.24	-.18
TV viewing	.25	-.29	.20	-.05	.12	.14	.02	.08	1.00	-.25	.24	.04	-.14	.07	.17
TV prefer.	-.21	-.02	.11	.17	-.06	-.18	-.04	.14	-.20	1.00	-.06	-.12	.18	-.06	-.08
TV relat.	-.01	.12	-.01	.03	-.02	.07	-.05	.06	.22	.02	1.00	.09	-.03	.00	.04
TV society	.09	.20	.10	-.15	-.03	.12	-.08	-.08	.12	-.13	.21	1.00	-.12	.05	-.03
Recent events	-.19	.02	-.22	.15	-.01	.05	-.04	.10	.06	.21	.11	-.09	1.00	-.20	-.02
Dream job	.08	.20	.08	-.26	.02	-.15	-.04	-.12	-.17	-.07	-.24	.08	-.29	1.00	.39
Real job	.27	-.06	.26	-.11	.05	.07	.05	-.10	.25	-.13	-.11	.06	-.22	.18	1.00

Table 8.3 Residuals for dependent variables:
 5th and 9th grade models

Variables	5th grade model	9th grade model
Social class	-	-
Sex	-	-
Socio-orientation	.964	.845
Concept-orientation	.976	.958
Positive parental TV attitudes	.823	.981
Addictive parental TV attitudes	.949	.930
Peer relations	.943	.945
Leisure activities	.948	.838
Adolescent TV viewing	.736	.722
Adolescent TV preferences	.887	.887
Adolescent TV relations	.867	1.00
TV-society	1.00	.882
Recent news events	.938	.897
Dream job in future	.875	.771
Real job in future	.815	.829

9. CONCLUDING DISCUSSION

In this final chapter we will present our final conclusions, drawn from the preceeding empirical analyses. First, we will present the most important results from these analyses. Second, some theoretical and methodological implications based on these results will be forwarded.

9.1 Summary of Results

In its simplest or most general form the research problem tackled in the present study can be outlined like this:

Social class $\longrightarrow$ TV use

The analyses are carried out within the framework of cognitive developmental stages, at the levels of concret and formal operations respectively. The aim has been to assess the relationship between social class and TV use. The effects of social class are, however, not only direct, but also operating through diverse interactional dimensions, which, in their turn, could have unique effects of TV use. We therefore introduced into the analysis the socialization agents of family and peers. This more specific version of the research problem can be illustrated as follows:



Finally, on the theoretical grounds of a combined 'uses and effects' model (see theoretical discussion in chapter 4) the analyses were expanded by incorporating the possible consequences of the TV use, measured by some aspects of adolescents' world view and social perception. The design of the analysis was then close to the original theoretical model of the Media Panel Program presented in section 1.1 above.

Starting with the relations between social class and the measures of family and peer socialization, the results show considerable social class effects. The communication climate in the family (measured with Chaffee's socio and concept orientations and of central theoretical importance in our study), turned out to be related to social class in the expected way. Socio-oriented family communication is more an aspect of working class subculture, while concept-orientation is located to a greater extent in a middle class environment. These tendencies are reinforced as we move our analysis from the concrete to the formal cognitive stage of adolescent development.

The second dimension of family socialization incorporated in the analysis was Brown's parental TV attitudes. Being more specific than the broad family communication patterns, they are less strongly related to social class. There are, however, empirical indications that working class parents are more favourable to adolescents' TV use in general, while middle class parents are more concerned with possible addictive effects of TV use on their children. Furthermore, the broad family communication patterns were demonstrated to affect, to some degree, the TV attitudes. These results, of course, allow for some indirect effects on the behalf of social class.

The third dimension of family socialization considered in the present work, the parents' own TV behaviour as well as their reports on adolescent TV use, was found to be rather strongly class related. What is theoretically most important, however, is that our analyses suggest (by way of tests of significance of group differences) that there are two separately styles of viewing habits: middle class and working class styles. The dividing line between heavy and light TV viewers, as well as between those preferring fictive and informative TV programs, follows the invisible but effective boundaries separating middle and working class cultures from each other.

Turning to the peer socialization measures, the results indicate that peer group culture, measured with the intensity of peer relations, is more a phenomenon of working class life style, while engagement in leisure activities is more strongly related to the middle class way of life. These results hold true, however, only for the older adolescents; for the younger adolescents very weak effects were demonstrated. Examining the results on adolescents' TV use, the following results are considered to be of most theoretical importance.

First, social class exerts considerable influence on adolescent TV viewing and preferences. As was the case for the parents' TV behaviour, working class adolescents are heavier viewers and prefer fictive TV content more than do their middle class counterparts. Of special theoretical importance is the fact that while the strength of the zero-order relationships is almost the same for both age groups, it decreases considerably for the younger adolescents but remains nearly unchanged for the older adolescents as we control for other aspects of the adolescents' life, both inside and outside the family. In line with our theoretical reasoning, these results indicate that the direct effects of social class increase as the adolescents grow older.

Second, the family communication patterns, although showing some zero-order effects in the expected direction on adolescents' TV use, do not stand up to multiple controls of social class and other socialization variables. The family communication patterns, therefore, contribute very little unique explanatory power to our understanding of adolescents' TV use. On the other hand, the more media specific parental TV attitudes are found to be a more independent factor (better withstanding the controls) in explaining adolescent TV use. All in all, in contrast to the effects of social class, the effects of the family socialization variables decrease as the adolescents become more mature members of society.

Third, while the effects of family socialization were found to decrease by age, the peer socialization variables do not increase their explanatory power as the adolescents grow older. On the contrary, the small effects obtained in the case of the younger adolescents all but disappear for the older adolescents. These results probably represent the most severe falsification of our initial hypotheses offered by the empirical analyses.

Fourth, looking specifically at the TV relations dimension of the adolescents' TV use, measuring involvement in the content consumed, the only predictor of the TV relations worth mentioning is peer relations, and then only in the case of the younger adolescents. These results indicate that for the younger adolescents TV relations function more as a compliment to already existing relations with their peers than as a functional alternative or substitute to such relations. On the whole, however, the variable measuring TV relations is not causally linked to the social background variables. The TV relations, therefore, operate relatively independently and certainly do not seem to be a phenomenon determined by social class.

Finally, in an attempt to capture some of the mechanisms underlying the differential TV use of middle and working class adolescents, the social classes were compared on the dimensions of modelling and social interaction. The results indicate a slight tendency for the modelling mechanism (measured by parental TV behaviour) to be more of a working class phenomenon while the social interaction mechanism (represented by family communication and peer relations) may be more of a middle class phenomenon.

Inspecting, finally, the results concerning our consequence variables, measured by a few aspects of adolescent world view and social perception, the following results were found to be of interest.

First, cognitive development appears crucial in assessing the topicality of the subject matter for the adolescents. Most of our consequence measures do not become relevant for the adolescents until at the formal operational stage. This fact is best seen in the increase of moderate and strong relations taking place from the analysis of younger to older adolescents. Especially noteworthy is the increase in the relations between the TV use and the consequence variables.

Second, comparing the explanatory power of the different TV use variables, derived from both the effects and the uses and gratification traditions, the latter tradition's TV relations were in most instances found to be a better predictor of the consequences of TV use than the former tradition's exposure measure. All in all, our results indicate a steady, although admittedly weak, tendency for TV to cultivate adolescents' world view and social perception in the directions of the world and the society portrayed on the screen.

9.2 Some Implications of the Results

In his theoretical critique of the uses and gratification approach Elliott (1974) maintains that the way this approach studies media use and its gratifications is only the study of class relationships in disguise. The recent advances of statistical techniques within the social sciences (i.e. structural equation models) now make it possible to attend empirically to important theoretical questions such as this. In the present study we have incorporated, within a single analysis, components from both the uses and gratification and the effects traditions, as well as from the differential socialization perspective. This makes it possible to sort out the relative importance of each perspective.

As discussed in the preceding section, the two most far-reaching results of the empirical analysis are these. Firstly, the influence exerted by a uses and gratification variable such as adolescents' TV relations was actually found to be relatively independent of the social class and socialization variables, while contributing, on the other hand, to the explanation of the consequence variables. Secondly, the family communication patterns, the central dimension of differential family socialization, did not contribute much independent explanatory power to our understanding of adolescents' TV habits.

These results have several theoretical implications. First, as discussed in section 8.3.4, this suggests that we should not exclude functional explanations in favour of differential socialization approaches as some researchers have proposed (e g Elliott 1974). Rather, the combination of both seems inevitable, if we are to advance in explaining adolescents' media use and the consequences thereof. Second, while sizable reduction in a strength of a relationship when controlling for other variables is almost 'instinctively' disappointing to the researcher, this, of course, does not have to be the case. As pointed out by Rosengren (1974), this phenomenon can also be positively interpreted. As mentioned in section 3.3 above, the positive implication in the case of the family socialization patterns, is that these patterns represent differential socialization on the micro level, while at the same time they, in their turn, depend to a fair extent on the differential socialization macro level dimension of social class, demonstrated to exert considerable direct effects on adolescent TV use. (Other variables than social class are, of course, also operative in the controlling process.)

Turning to the consequences of TV use, measured by aspects of the adolescents' world view and social perception, our results show that TV use affects the ado-

lescents' perception uniquely (over and above mediating effects stemming from social class and socialization). These effects are, however, subtle, not simple and straight forward. The different dimensions of TV use (viewing, preferences and relations) possess different explanatory power according to the topic under study. The theoretical implication, we believe, is that effects studies, such as Gerbner's cultivation analysis, would benefit considerably from the incorporation of more 'indepth' uses and gratification variables alongside with more 'simplistic' exposure measures.

In the most general terms, the present study has demonstrated the importance of using as powerful multivariate statistical techniques as possible when trying to explain complex social phenomena such as adolescent TV use and the consequences thereof. While we have used a relatively great number of variables in the structural equation models presented in chapter eight, the LISREL method has been used in a relatively 'simple' way (as a path analytical device only). To penetrate deeper into the complexity of our research object, we find it, therefore, essential to further expand the scope of our empirical analyses within the Media Panel Program.

First, the measurement part of the LISREL method should be applied to the material instead of using a-priori constructed scales and indices as in the present study. We should then be able to heighten the level of abstraction (i.e. constructing higher order variables) in the analysis, which is important as we incorporate more and more complex networks of indicators in the analysis (cf Munck 1979).

Second, we must take nonrecursive relations into account in our analysis. The causal order of the relations between different socialization agents and adolescents' TV uses and consequences is certainly much more complex than is indicated by a recursive causal

analysis. Feedback between the different elements must also be considered. (The importance of nonrecursive relations in the study of adolescents' media use and the consequences thereof has recently been demonstrated by Conway et al (1981).)

Third, we should utilize the capacity of the LISREL method to estimate simultaneously the parameters of different subgroups within the total sample, making comparison of group structures possible. These procedures are, for instant, theoretically relevant for the Gerbner group's claim of the importance of subgroup differences. For our purpose, the simultaneous estimation of working class versus middle class subgroups on the one hand, and younger adolescents versus older adolescents on the other hand, would be of central theoretical importance.

Finally, but most importantly, the task of moving beyond cross-sectional, to longitudinal analysis, presents itself. (Incidentally, for longitudinal studies, too, structural equation models have been demonstrated to deal successfully with the specific problems encountered in such research; cf Sörbom (1978).) Within the Media Panel Program, which now has collected a rich amount of longitudinal material, two forthcoming dissertations, by Ulla Johnsson-Smaragdi and Keith Roe, will deal with this question.

To some readers, the quest for a still more sophisticated analysis of a still more expanded data-set may appear to imply a fixation on the area of empirical analysis - a case of severe data fetishism. We do not see it that way. On the contrary, as discussed in section 4.4, we regard sophisticated statistical analysis of large sets of empirical data to be of crucial importance to the further development and testing of explicit social theory, which we regard as the ultimate goal of our activity. In this context, we find it appropriate to conclude our discussion by quoting

Melvin L Kohn, long influential in the research on social class and family socialization (cf section 3.2 above; Holter et al (1976) and Martens (1981).) Together with his associates, Kohn is at present engaged in an extensive testing of his theories, using structural equation models estimated by the LISREL technique. Assessing the importance of this technique for theoretical advancements, Kohn states:

"It has the crucial advantage of allowing the analyst to make deliberate choices about all the parameters of the model, thus making explicit and subject to theoretical determination decisions that are otherwise arbitrary, often made without the investigator being fully aware of the issues". (Kohn and Schooler 1981:283)

Only by combining theory and data, using the most appropriate statistical techniques available, will we be able to increase our knowledge in the field. The Media Panel Program offers a possibility to continue work along these lines.

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